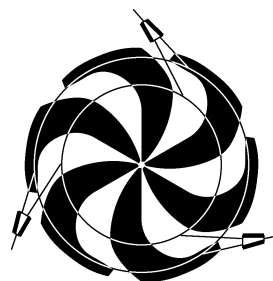


# TRIUMF



## ANNUAL REPORT SCIENTIFIC ACTIVITIES 2004

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**CANADA'S NATIONAL LABORATORY  
FOR PARTICLE AND NUCLEAR PHYSICS**

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UNDER A CONTRIBUTION FROM THE  
NATIONAL RESEARCH COUNCIL OF CANADA

OCTOBER 2005

*The contributions on individual experiments in this report are outlines intended to demonstrate the extent of scientific activity at TRIUMF during the past year. The outlines are not publications and often contain preliminary results not intended, or not yet ready, for publication. Material from these reports should not be reproduced or quoted without permission from the authors.*

## EXPERIMENT PROPOSALS

The following lists experiment proposals received up to the end of 2004 (missing numbers cover proposals that have been withdrawn or replaced by later versions, rejected, or combined with another proposal). Experiments 1–699 are omitted from this listing (except for those reporting results in this Annual Report). Please refer to the 1999 Annual Report or see <http://www.triumf.ca/annrep/experiments.html> for a full listing of these earlier experiments. Page numbers are given for those experiments which are included in this Annual Report.

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614. TWIST - precise measurement of the  $\rho$ ,  $\delta$  and  $(\mathcal{P}_\mu\xi)$  parameters in muon decay [active], R. Bayes, Y. Davydov, J. Doornbos, W. Faszler, M.C. Fujiwara, D.R. Gill, P. Gumplinger, R. Henderson, J. Hu, J.A. Macdonald\*, G. Marshall, R. Mischke, M. Nozar, K. Olchanski, A. Olin, R. Openshaw, T.A. Porcelli, J.-M. Poutissou, R. Poutissou, G. Sheffer, W. Shin (*TRIUMF*), A. Gaponenko, P. Kitching, R.P. MacDonald, M. Quraan, N. Rodning\*, J. Schaapman, G.M. Stinson (*U. Alberta*), M. Hasinoff, B. Jamieson (*UBC*), P. Depommier (*U. Montréal*), E.L. Mathie, R. Tacik (*U. Regina*), V. Selivanov, V. Torokhov (*Kurchatov Inst.*) C.A. Gagliardi, J.R. Musser, R.E. Tribble, M.A. Vasiliev (*Texas A&M U.*), D.D. Koetke, P. Nord, T.D.S. Stanislaus (*Valparaiso U.*)
700. Measuring cross sections of long-lived radionuclides produced by 200-500 MeV protons in elements found in meteorites and lunar rocks [completed], J. Vincent (*TRIUMF*), J.M. Sisterson (*Harvard U.*), K. Kim (*San Jose State U.*), A.J.T. Jull (*U. Arizona*), M.W. Caffee (*Lawrence Livermore Nat. Lab*), R.C. Reedy (*Los Alamos Nat. Lab*)
702. Measurement of kaon-nucleon elastic scattering at 16 MeV [active], G.A. Beer, P. Knowles, G.R. Mason, A. Olin, L.P. Robertson (*U. Victoria*), P. Amaudruz, D.R. Gill, G. Smith, S. Yen (*TRIUMF*), L. Lee (*U. Manitoba*), G. Tagliente (*UBC*)
703. Study of the decay  $\pi^+ \rightarrow e^+\nu$  phase I – lifetime measurement of the pion [completed], D.A. Bryman, T. Numao, A. Olin (*TRIUMF*)
704. Charge symmetry breaking in  $np \rightarrow d\pi^0$  close to threshold [completed], R. Abegg\*, P.W. Green, D.A. Hutcheon (*TRIUMF-U. Alberta*), L.G. Greeniaus (*U. Alberta-TRIUMF*), R.W. Finlay, A.K. Opper, S.D. Reitzner (*Ohio U.*), E. Korkmaz, T.A. Porcelli (*UNBC*), J.A. Niskanen (*U. Helsinki*), P. Walden (*TRIUMF-UBC*), S. Yen (*TRIUMF*), C.A. Davis (*TRIUMF-U. Manitoba*), D.V. Jordan (*Ohio U.-U. Alberta*), E. Auld (*UBC*)
705. Development of modular gas microstrip chambers as in-target tracking devices for an experiment to detect  $\Lambda\Lambda$  hypernuclei at the BNL AGS (BNL885) [completed data-taking], C.A. Davis (*TRIUMF-U. Manitoba*), B. Bassalleck, R. Stotzer (*U. New Mexico*), A.R. Berdoz, A. Biglan, D.S. Carman, G.B. Franklin, P. Khaustov, P. Koran, R. Magahiz, R. McCrady, C.A. Meyer, K. Paschke, B. Quinn, R.A. Schumacher, (*Carnegie-Mellon U.*), J. Birchall, L. Gan, M.R. Landry, L. Lee, S.A. Page, W.D. Ramsay, W.T.H. van Oers (*U. Manitoba*), T. Bürger, H. Fischer, J. Franz, H. Schmitt (*U. Freiburg*), D.E. Alburger, R.E. Chrien, M. May, P.H. Pile, A. Rusek, R. Sawafta, R. Sutter (*Brookhaven Nat. Lab*), A. Ichikawa, K. Imai, Y. Kondo, K. Yamamoto, M. Yosoi (*Kyoto U.*), F. Takeuchi (*Kyoto Sangyo U.*), V.J. Zeps (*U. Kentucky*), P.D. Barnes, F. Merrill (*Los Alamos Nat. Lab*), V.J. Zeps (*U. Kentucky*), T. Iijima (*KEK*), J. Lowe (*U. Birmingham*)
706.  $\mu$ SR studies of spin fluctuations in CePt<sub>2</sub>Sn<sub>2</sub> and other Kondo spin systems [completed], A. Keren, K. Kojima, G.M. Luke, Y.J. Uemura, W.D. Wu (*Columbia U.*), K. Andres, G.M. Kalvius (*Tech. U. Munich*), H. Fujii, G. Nakamoto, T. Takabatake, H. Tanaka (*Hiroshima U.*), M. Ishikawa (*ISSP U. Tokyo*), B. Andracka (*U. Florida*), D.L. Cox (*Ohio State U.*)
707.  $\mu$ SR measurements on two-dimensional site-diluted antiferromagnets [active], K. Kojima (*Columbia U.-U. Tokyo*), A. Keren, G.M. Luke, Y.J. Uemura, W.D. Wu (*Columbia U.*), H. Ikeda (*KEK-KENS*), R.J. Birgeneau (*MIT*), K. Nagamine (*U. Tokyo*)
708. The spin relaxation and chemical reactivity of muonium-substituted organic radicals in the gas phase [completed], D.G. Fleming, J.J. Pan, M. Shelley (*UBC*), D.J. Arseneau (*TRIUMF-UBC*), M. Senba (*TRIUMF*), J.C. Brodovitch, P.W. Percival (*SFU*), H. Dilger, E. Roduner (*U. Zürich*), S.F.J. Cox (*Rutherford Appleton Lab*)
709.  $^{90,92,94,96}\text{Zr}(n,p)^{90,92,94,96}\text{Y}$  reaction at 200 MeV [completed data-taking], A.G. Ling, P.L. Walden (*TRIUMF*), J. Rapaport (*Ohio U.*), D.A. Cooper, D.L. Prout, E.R. Sugarbaker (*Ohio State U.*), M. Halbert (*Oak Ridge Nat. Lab*), D. Mercer (*U. Colorado*), J. Campbell (*U. Manitoba-TRIUMF*), M. Hartig (*U. Muenster*)
710. Dynamics of muonium in Ge and GaAs [completed], R.L. Lichti (*Texas Tech. U.*), S.F.J. Cox (*Rutherford Appleton Lab*), R.F. Kiefl (*UBC*), K.H. Chow (*Lehigh U.*), T.L. Estle (*Rice U.*), B. Hitti (*TRIUMF*), E.A. Davis (*Leicester U.*), C.R. Schwab (*CNRS, Strasbourg*)

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712.  $\mu$ SR study of superconducting spin glasses [completed], V. McMullen, D.R. Noakes, C.E. Stronach (*Virginia State U.*), E.J. Ansaldò (*U. Saskatchewan*), J.H. Brewer (*UBC*), G. Cao, J.E. Crow (*NHMFL*), S. McCall (*Florida State U.–NHMFL*)
713. Muonium chemistry in supercritical water [completed], B. Addison-Jones, J.-C. Brodovitch, K. Ghandi, I. McKenzie, P. Percival (*SFU*), J. Schüth (*U. Bonn*)
714. Atomic PNC in francium: preparations [inactive], J.A. Behr, L. Buchmann, M. Domsbky, P. Jackson, C.D.P. Levy (*TRIUMF*), J.M. D’Auria, P. Dubé, A. Gorelov, D. Melconian, T. Swanson, M. Trinczek (*SFU*), O. Häusser\* (*SFU–TRIUMF*), U. Giesen (*U. Alberta*), I. Kelson, A.I. Yavin (*Tel Aviv U.*), J. Deutsch (*U. Catholique de Louvain*), J. Dilling (*SFU–Heidelberg*)
715. Weak interaction symmetries in  $\beta^+$  decay of optically trapped  $^{37,38\text{m}}\text{K}$  [active], J.M. D’Auria, A. Gorelov, D. Melconian, M. Trinczek (*SFU*), J.A. Behr, P. Bricault, M. Domsbky, K.P. Jackson, B.K. Jennings (*TRIUMF*), S. Gu, M. Pearson (*UBC*), U. Giesen (*U. Notre Dame*), W.P. Alford (*U. Western Ontario*), J. Deutsch (*U. Catholique de Louvain*), D.A. Ashery, O. Aviv (*Tel Aviv U.*), F. Glück (*U. Mainz*)
716. Complete beta-delayed particle emission study of  $^{31}\text{Ar}$  [deferred], J. Cerny, D.M. Moltz, T. Ognibene, M.W. Rowe, R.J. Tighe (*Lawrence Berkeley Lab*), L. Buchmann (*TRIUMF*), J. D’Auria (*SFU*), M. Domsbky (*SFU–U. Alberta*), G. Roy (*U. Alberta*)
717. Muon hyperfine transition rates in light nuclei [completed], J.H. Brewer, E. Gete, M.C. Fujiwara, J. Lange, D.F. Measday, B.A. Moftah, M.A. Saliba, T. Stocki (*UBC*), T.P. Gorringer (*U. Kentucky*)
718. Superconductivity and magnetism in quaternary boron carbides [completed], A. Keren, G.M. Luke, Y.J. Uemura, W.D. Wu (*Columbia U.*), K. Kojima (*Columbia U.–U. Tokyo*), S. Uchida (*U. Tokyo*)
719.  $^4\text{He}(\pi^+, \pi^- pp)$  invariant mass measurement with CHAOS [completed data-taking], P. Amaudruz, L. Felawka, D. Ottewell, G. Smith (*TRIUMF*), E.T. Mathie, R. Tacik, D.M. Yeomans (*U. Regina*), H. Clement, J. Gräter, R. Meier, G.J. Wagner (*U. Tübingen*), J. Clark, M. Seviar (*U. Melbourne*), A. Ambardar, G.J. Hofman, M. Kermani, G. Tagliente (*UBC*), F. Bonutti, P. Camerini, N. Grion, R. Rui (*U. di Trieste*), J. Brack, R. Ristinen (*U. Colorado*), E. Gibson (*California State U., Sacramento*), M. Schepkin (*ITEP Moscow*)
720. Muonium’s nucleophilicity [active], G.B. Porter, D.C. Walker (*UBC*), J.M. Stadlbauer\* (*Hood Coll.*), K. Venkateswaran (*Hindustan Lever Ltd.*), M.V. Barnabas (*Proctor & Gamble Ltd.*)
721. The delta nucleon reaction in CHAOS [completed data-taking], F. Farzanpay, P. Hong, E.L. Mathie, N. Mobed (*U. Regina*), R. Tacik (*TRIUMF–U. Regina*), P.A. Amaudruz, L. Felawka, R. Meier, D. Ottewell, G.R. Smith (*TRIUMF*), N. Grion (*INFN, Trieste*), P. Camerini, R. Rui (*U. di Trieste*), E. Gibson (*California State U., Sacramento*), G. Hofman, G. Jones, M. Kermani (*UBC*), M.E. Seviar (*U. Melbourne*), J.T. Brack, R.A. Ristinen (*U. Colorado*)
722. Pion initial state interactions in the  $^{12}\text{C}(\pi^+, ppp)$  reaction [completed data-taking], T. Mathie, R. Tacik (*U. Regina*), P.A. Amaudruz, L. Felawka, D. Ottewell, K. Raywood, G.R. Smith (*TRIUMF*) M. Kermani, S. McFarland (*UBC*), F. Bonutti, P. Camerini, R. Rui (*U. di Trieste*), N. Grion (*INFN, Trieste*), E.F. Gibson (*California State U., Sacramento*), M. Seviar (*U. Melbourne*), J. Brack, G. Hofman (*U. Colorado*), R. Meier (*U. Tübingen*)
723. Study of pion-nucleus double-scattering reactions [completed data-taking], R. Tacik (*TRIUMF–U. Regina*), T. Mathie (*U. Regina*), P. Amaudruz, L. Felawka, D. Ottewell, K. Raywood, G. Smith (*TRIUMF*), M. Kermani, S. McFarland (*UBC*), F. Bonutti, P. Camerini, R. Rui (*U. di Trieste*), N. Grion (*INFN, Trieste*), J. Brack, G. Hofman (*U. Colorado*), R. Meier (*U. Tübingen*), M. Seviar (*U. Melbourne*), E. Gibson (*California State U. Sacramento*)
724.  $\mu$ SR measurements on spin ladder systems [completed], A. Keren, G.M. Luke, Y.J. Uemura, W.D. Wu (*Columbia U.*), K. Kojima (*Columbia U.–U. Tokyo*), M. Takano (*Kyoto U.*), K. Nagamine (*U. Tokyo*)
725. Pion double charge exchange reactions on  $^{3,4}\text{He}$  in the energy range 50–100 MeV [completed], P. Amaudruz, L. Felawka, R. Meier, D. Ottewell, G. Smith (*TRIUMF*), T. Mathie, R. Tacik, M. Yeomans (*U. Regina*), J. Graeter, G. Wagner (*U. Tübingen*), J. Clark, M. Seviar (*U. Melbourne*), G. Hofman, M. Kermani, P. Tagliente (*UBC*), F. Bonutti, P. Camerini, N. Grion, R. Rui (*U. di Trieste*), J. Brack, R. Ristinen (*U. Colorado*), E. Gibson (*California State U., Sacramento*), O. Patarakin (*Kurchatov Inst.*), E. Friedman (*Hebrew U. Jerusalem*)
726. Beta-delayed proton and  $\gamma$ -decay of  $^{65}\text{Se}$ ,  $^{69}\text{Kr}$  and  $^{73}\text{Sr}$  [active], D. Anthony, J. D’Auria, M. Trinczek (*SFU*), R.E. Azuma, J.D. King (*U. Toronto*), L. Buchmann, K.P. Jackson, J. Vincent (*TRIUMF*), M. Domsbky (*SFU–U. Alberta*), U. Giesen (*TRIUMF–U. Alberta*), J. Görres, H. Schatz, M. Wiescher (*U. Notre Dame*), C. Iliadis (*TRIUMF–U. Toronto*), G. Roy (*U. Alberta*)

728. Search for population and de-excitation of low-spin superdeformed states in Po-Hg region via  $\beta^+$  and  $\alpha$  decays [completed data-taking], Y.A. Akovali, M. Brinkman (*Oak Ridge Nat. Lab*), J.M. D’Auria (*TRIUMF-SFU*), J.A. Becker, E.A. Henry (*Lawrence Livermore Nat. Lab*), M. Dombisky (*SFU*), P.F. Mantica (*UNISOR*), W. Nazarewicz (*Joint Inst. for Heavy Ion*), J. Rikovska, N.J. Stone (*Oxford U.*), M.A. Stoyer (*Lawrence Berkeley Nat. Lab*), R.A. Wyss (*MSI, Sweden*)
729. Gamow-Teller and spin-dipole strengths from  $^{17,18}\text{O}(n, p)$  [completed data-taking], D.P. Beatty, H.T. Fortune, P.P. Hui, R.B. Ivie, Z.Q. Mao, M.G. McKinzie, D.A. Smith (*U. Pennsylvania*), W.P. Alford (*U. Western Ontario*), K.P. Jackson, A.G. Ling, C.A. Miller, P. Walden, S. Yen (*TRIUMF*)
730. The solar neutrino problem and a new measurement of  $^7\text{Be}(p, \gamma)^8\text{B}$  [deferred], R.E. Azuma, J.D. King (*U. Toronto*), P. Bricault, L. Buchmann, T. Ruth, H. Schneider, J. Vincent, S. Zeisler (*TRIUMF*), J. D’Auria, R. Korteling (*SFU*), M. Dombisky (*SFU-U. Alberta*), U. Giesen (*TRIUMF-U. Alberta*), C. Iliadis (*TRIUMF-U. Toronto*), G. Roy (*U. Alberta*), M. Wiescher (*U. Notre Dame*)
731. Investigation of spin-polarized muonium in metallic semiconductors [completed], K.H. Chow, S. Dunsiger, R.F. Kiefl, W.A. MacFarlane, J. Sonier (*UBC*), S.F.J. Cox (*Rutherford Appleton Lab*), E.A. Davis, A. Singh (*Leicester U.*), T.L. Estle, B. Hitti (*Rice U.*), R.L. Lichti (*Texas Tech. U.*), P. Mendels (*Orsay U.*), C. Schwab (*CRN, Strasbourg*)
732. Quantum impurities in one dimensional spin 1/2 chains [completed], I. Affleck, J.H. Brewer, K. Chow, S. Dunsiger, S. Eggert, R.F. Kiefl, A. MacFarlane, J. Sonier (*UBC*), A. Keren, Y.J. Uemura (*Columbia U.*)
733. Probing high  $T_c$  superconductor with “paramagnetic” ( $\mu^- \text{O}$ ) system [active], H. Kojima, I. Tanaka, E. Torikai (*Yamanashi U.*), K. Nishiyama (*U. Tokyo*), K. Nagamine (*U. Tokyo-RIKEN*), I. Watanabe (*RIKEN*), T.P. Das (*State U. New York*), S. Maekawa (*Nagoya U.*)
734. Radiative muon capture on nickel isotopes [completed], D.S. Armstrong, P. McKenzie (*Coll. of William & Mary*), G. Azuelos, P. Depommier (*U. de Montréal*), P. Bergbusch, P. Gumplinger, M. Hasinoff, E. Saettler (*UBC*), B. Doyle, T.P. Gorringer, R. Sedlar (*U. Kentucky*), M. Blecher, C. Sigler (*Virginia Polytechnic Inst.*), J.A. MacDonald, J.-M. Poutissou, R. Poutissou, D. Wright (*TRIUMF*)
735. Studies of single layer cuprate superconductors [completed], G.M. Luke, B. Nachumi, Y.J. Uemura (*Columbia U.*), K. Kojima (*Columbia U.-U. Tokyo*), S. Uchida (*U. Tokyo*), R.H. Heffner, L.P. Le (*Los Alamos Nat. Lab*), R. MacLaughlin (*U. California, Riverside*), M.B. Maple (*U. California, San Diego*)
736. Tests of electro-weak theory using  $^{14}\text{O}$  beam [deferred], M. Bahtacharya, A. Garcia, R. Rutchi, M. Wayne (*U. Notre Dame*), L. Buchmann (*TRIUMF*), C. Iliadis (*TRIUMF-U. Toronto*), B. Fujikawa (*Lawrence Berkeley Lab*), S.J. Freedman, J. Mortara (*U. California, Berkeley*)
737. Magnetic and superconducting behaviour in selected oxide materials [completed], R.H. Heffner, L.P. Le (*Los Alamos Nat. Lab*), D.E. Maclaughlin (*U. California, Riverside*), G. Luke, B. Nachuma, Y.J. Uemura (*Columbia U.*), K. Kojima (*Columbia U.-U. Tokyo*)
740. Irradiation of silicon tracker components [completed], R. Lipton, L. Spiegel (*Fermilab*), K.F. O’Shaughnessy (*U. California, Santa Cruz*), B. Barnett, J. Cameratta, J. Skarha (*Johns Hopkins U.*), N. Brunner, M. Frautschi, M. Gold, Y. Ling, J. Matthews, S. Seidel (*U. New Mexico*), D. Bortoletto, A. Garfinkel, A. Hardman, K. Hoffman, T. Keaffaber, N.M. Shaw (*Purdue U.*)
741. Beta-delayed proton decay of  $^{17}\text{Ne}$  to  $\alpha$ -emitting states in  $^{16}\text{O}$  [completed], R.E. Azuma, J. Chow, J.D. King, A.C. Morton (*U. Toronto*), L. Buchmann, M. Dombisky (*TRIUMF*), U. Giesen (*U. Notre Dame*), T. Davinson, A.C. Shotton (*U. Edinburgh*), R.N. Boyd (*Ohio State U.*), C. Iliadis (*U. North Carolina*), J. Powell (*U. California, Berkeley*),
742. Scattering of muonic hydrogen isotopes [completed], V.M. Bystritsky, V.A. Stolupin (*JINR*), R. Jacot-Guillarmod, P.E. Knowles, F. Mulhauser (*U. Fribourg*), G.M. Marshall (*TRIUMF*), M. Filipowicz, J. Wozniak (*Fac. Phys., Nucl. Tech., Krakow*), A. Adamczak (*Inst. Nucl. Physics, Krakow*), A.R. Kunselman (*U. Wyoming*), V.E. Markushin, C. Petitjean (*PSI*), T.M. Huber (*Gustavus Adolphus Coll.*), G.A. Beer, M. Maier, A. Olin, T.A. Porcelli (*U. Victoria*), P. Kammel (*U. California, Berkeley*), M.C. Fujiwara (*UBC*), J. Zmeskal (*IMEP Vienna*), S.K. Kim (*Jeonbuk Nat. U.*)
743. Gamow-Teller strength in  $^{64,66,68}\text{Zn}$  and  $^{63,65}\text{Cu}(n, p)$  [completed data-taking], W.P. Alford (*U. Western Ontario*), D. Beatty, H.T. Fortune, P.P. Hui, R.B. Ivie, Z. Mao, M.G. McKinzie, D.A. Smith (*U. Pennsylvania*), S. Yen (*TRIUMF*)
744. Hadronic weak and electromagnetic form factors via  $\pi^- p \rightarrow e^+ e^- n$  [active], P. Gumplinger, M.D. Hasinoff (*UBC*), T.P. Gorringer, M.A. Kovash (*U. Kentucky*), D.H. Wright (*SLAC*), E. Christy (*Hampton U.*), P. Zolnierczuk (*IUCF*)

745.  $\mu^-$ SR measurements on one-dimensional spin systems [active], K. Kojima (*Columbia U.-U. Tokyo*), K. Nagamine, K. Nishiyama, S. Uchida (*U. Tokyo*), G.M. Luke, B. Nachumi, Y.J. Uemura (*Columbia U.*), I. Affleck, S. Dunsiger, S. Eggert, R.F. Kiefl (*UBC*)
746. Muonium dynamics in Si, Ge and GaAs studied by RF- $\mu$ SR and  $\mu$ W- $\mu$ SR [active], S.R. Kreitzman (*TRIUMF*), T.L. Estle, B. Hitti (*Rice U.*), R. Lichti (*Texas Tech. U.*), K. Chow (*UBC*), S.F.J. Cox (*Rutherford Appleton Lab*), E.A. Davis (*Leicester U.*), C. Schwab (*CRN Strasbourg*)
747.  $\mu$ SR study of re-entrant spin glasses a-FeMn, AuFe, and Fe<sub>70</sub>Al<sub>30</sub> [completed], I.A. Campbell (*U. Paris Sud Orsay*), S. Dunsiger, R.F. Kiefl (*UBC*), M.J.P. Gingras (*TRIUMF*), M. Hennion, I. Mirebeau (*Saclay, LLB*), K. Kojima, G.M. Luke, B. Nachumi, Y.J. Uemura, W.D. Wu (*Columbia U.*)
749. Muonium-substituted free radicals [completed data-taking], B. Addison-Jones, J.C. Brodovitch, K. Ghandi, I. McKenzie, P.W. Percival (*SFU*), J. Schüth (*U. Bonn*)
750. Liquid chemistry  $\mu$ SR [completed], G.B. Porter, D.C. Walker (*UBC*), J.M. Stadlbauer\* (*Hood Coll.*), K. Venkateswaran (*Lever Hindustan Ltd.*), M.V. Barnabas *Procter & Gamble Ltd.*)
751. Tests in preparation for  $\mu$ SR measurements of off-axis internal magnetic fields in anisotropic superconductors [active], E. Csomortani, W.J. Kossler, X. Wan (*Coll. of William & Mary*), D.R. Harshman (*Physikon Research Inc.*), A. Greer (*Gonzaga U.*), E. Koster, D.L. Williams (*UBC*), C.E. Stronach (*Virginia State U.*)
752. Muonium centres in Si and GaAs [completed], K.H. Chow (*Oxford U.*), S.F.J. Cox (*Rutherford Appleton Lab*), E.A. Davis (*Leicester U.*), S. Dunsiger, R.F. Kiefl, W.A. MacFarlane (*UBC*), T.L. Estle (*Rice U.*), B. Hitti (*TRIUMF*), R.L. Lichti (*Texas Tech. U.*), C. Schwab (*CRN Strasbourg*)
753. Studies of magnetic correlations in planar oxides [completed], K. Kojima (*Columbia U.-U. Tokyo*), M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), B.J. Sternlieb (*Brookhaven Nat. Lab*), S. Uchida (*U. Tokyo*)
754. A search for the muonium substituted hydroxyl radical [deferred], T.A. Claxton, G. Marston (*Leicester U.*), S.F.J. Cox (*Rutherford Appleton Lab*), D. Arseneau, D. Fleming, M. Senba, P. Wassell (*UBC*), J.-C. Brodovitch, P.W. Percival (*SFU*)
755. Muonium formation in Zn-spinels [deferred], G.M. Kalvius, A. Kratzer, W. Potzel (*Tech. U. Munich*), R. Wäppling (*U. Uppsala*), D.R. Noakes (*Virginia State U.*), S.R. Kreitzman (*TRIUMF*), A. Martin (*U. Jena*), M.K. Krause (*U. Leipzig*)
756. Mu+NO spin relaxation: electron exchange or paramagnetism? [deferred], D.G. Fleming, J.J. Pan, M. Senba, M. Shelley (*UBC*), D.J. Arseneau (*TRIUMF*), E. Roduner (*U. Zürich*)
757. Study of muon dynamics in ferroelectric materials and proton ionic conductors – comparison with proton dynamics [completed], W.K. Dawson, K. Nishiyama, S. Ohira, K. Shimomura (*U. Tokyo*), K. Nagamine (*U. Tokyo-RIKEN*), S. Ikeda (*KEK*), S. Shin (*ISSP U. Tokyo*), N. Sata (*Tohoku U.*)
758. Electronic structure of muonium and muonium-lithium complexes in graphite and related compounds [completed], J. Brewer, J. Chakhalian, S. Dunsiger, R.F. Kiefl, W.A. MacFarlane, R. Miller, J. Sonier (*UBC*), J. Dahn (*Dalhousie U.*), J. Fischer (*U. Pennsylvania*), B. Hitti, S.R. Kreitzman (*TRIUMF*)
759. Study of the isotropic hyperfine coupling constant of muonium at high temperature and under uniaxial pressure [completed], W.K. Dawson, K. Nishiyama, S. Ohira, K. Shimomura (*U. Tokyo*), K. Nagamine (*U. Tokyo-RIKEN*), T.P. Das (*U. New York, Albany*)
761. Parity violation in  $p-p$  scattering at 450 MeV [deferred], J. Birchall, C.A. Davis, L. Lee, S.A. Page, W.D. Ramsay, A.W. Rauf, G. Rutledge, W.T.H. van Oers (*U. Manitoba*), R. Helmer, R. Laxdal, C.D.P. Levy (*TRIUMF*), P.W. Green, G. Roy, G.M. Stinson (*U. Alberta*), N.A. Titov, S. Zadorozhny, A.N. Zelenski (*INR, Moscow*), J.D. Bowman, R.E. Mischke, S. Penttila, W.S. Wilburn (*Los Alamos Nat. Lab*), E. Korkmaz, (*UNBC*), M. Simonius (*ETH Zürich*), J. Bisplinghoff, P.D. Eversheim, F. Hinterberger (*U. Bonn*), W. Kretschmer, G. Morgenroth (*U. Erlangen*), H. Schieck (*U. Cologne*), P. von Rossen (*KFA Jülich*)
762. Gamow-Teller and spin-flip dipole strengths near  $A=90$  [completed data-taking], W.P. Alford (*U. Western Ontario*), D.P. Beat-ty, H.T. Fortune, P.P. Hui, R.B. Ivie, D. Koltenuk, J. Yu (*U. Pennsylvania*), A. Ling, S. Yen (*TRIUMF*), S. El-Kateb (*King Fahd U.*)
763. Muon cooling and acceleration in an undulating crystal channel [deferred], S.A. Bogacz, D.B. Cline, D.A. Sanders (*UCLA*), L.M. Cremaldi, B. Denardo, Q. Jie, D.J. Summers (*U. Mississippi-Oxford*), G.M. Marshall (*TRIUMF*)
764. Calibration of a segmented neutron detector [completed], E. Korkmaz, G. O’Rielly (*UNBC*), D.A. Hutcheon (*TRIUMF*), A.K. Opper (*U. Alberta*), G. Feldman, N.R. Kolb (*U. Saskatchewan*)

766. The ortho-para transition rate in muonic molecular hydrogen [completed], D.S. Armstrong, J.H.D. Clark, P. King (*Coll. of William & Mary*), T.P. Gorringer, S. Tripathi, P.A. Żolnierczuk (*U. Kentucky*), M.D. Hasinoff, T. Stocki (*UBC*), D.H. Wright (*TRIUMF*)
767. Direct measurement of sticking in muon catalyzed  $d - t$  fusion [inactive], J.M. Bailey (*Chester Technology, UK*), G.A. Beer, M. Maier, G.R. Mason, T.A. Porcelli (*U. Victoria*), K.M. Crowe, P. Kammel (*U. California, Berkeley-LBL*), M.C. Fujiwara, E. Gete, T.J. Stocki (*UBC*), T.M. Huber (*Gustavus Adolphus Coll.*), S.K. Kim (*Jeonbuk Nat. U.*), A.R. Kunselman (*U. Wyoming*), G.M. Marshall, A. Olin (*TRIUMF*), C.J. Martoff (*Temple U.*), V.S. Melezhik (*JINR, Dubna*), F. Mulhauser (*U. Fribourg*), C. Petitjean (*PSI*), J. Zmeskal (*IMEP Vienna*)
768. Generalized Fulde-Ferrell-Larkin-Ovchinnikov state in heavy fermion and intermediate valence systems [completed], J. Akimitsu, K. Oishi, T. Muranaka (*Aoyama Gakuin U.*), W. Higemoto, R. Kadono, A. Koda (*KEK-IMSS*), M. Nohara, H. Suzuki, H. Takagi (*U. Tokyo*), R.F. Kiefl, R.I. Miller, A.N. Price (*UBC-TRIUMF*), J.E. Sonier (*SFU*)
769. Effects of uniaxial stress on muonium in semiconductors [completed], K.H. Chow (*Oxford*), B. Hitti (*TRIUMF*), R.F. Kiefl (*UBC*), T.L. Estle (*Rice U.*), R. Lichti (*Texas Tech. U.*)
770.  $\mu$ SR studies of organic conductors:  $(\text{BEDT-TTF})_2\text{-X}$  and  $(\text{TMTTF})_2\text{Br}$  [completed], K. Kojima, M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), P.M. Chaikin (*Princeton U.*), G. Saito (*Kyoto U.*)
771.  $\mu$ SR studies of geometrically frustrated  $S = 1/2$  spin systems [completed], K. Kojima, M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), M.J.P. Gingras (*TRIUMF*), S. Dunsiger, R.F. Kiefl (*UBC*), D.C. Johnston, S. Kondo (*Iowa State U.*), S. Uchida (*U. Tokyo*), R.J. Cava (*AT&T Bell Labs*)
772. Search for the  $\Delta - \Delta$  dibaryon [inactive], R. Abegg\*, C.A. Miller, P. Walden, S. Yen (*TRIUMF*), R. Bent (*Indiana U.*), T.Y. Chen, F. Wang, C.H. Ye (*Nanjing U.*), W. Falk (*U. Manitoba*), D. Frekers, M. Hartig (*U. Muenster*), T. Goldman (*Los Alamos Nat. Lab*), M. Heyrat, C.W. Wong (*UCLA*), G. Jones (*UBC*), E. Korkmaz, G. O'Rielly (*UNBC*), C. Rangacharyulu (*U. Saskatchewan*), I. Strakovsky (*Virginia Tech. Inst.*), Z.X. Sun, J.C. Xu (*Inst. Atomic Energy, China*), T. Walton (*Cariboo U. Coll.*)
773. Muon-electron interaction in  $n$ -type silicon [completed], D. Arseneau, B. Hitti, S.R. Kreitzman (*TRIUMF*), J.H. Brewer, R.F. Kiefl, G. Morris (*UBC*), K. Chow (*Oxford U.*), S.F.J. Cox (*Rutherford Appleton Lab*), D.G. Eshchenko (*INR, Moscow*), T.L. Estle (*Rice U.*), R. Lichti (*Texas Tech. U.*), V.G. Storchak, (*Kurchatov Inst.*)
774. Muonium dynamics in GaAs studied by rf and  $\mu$ -wave  $\mu$ SR [active], B. Hitti, S.R. Kreitzman (*TRIUMF*), T.L. Estle (*Rice U.*), R. Lichti (*Texas Tech. U.*)
775. Electron transport in insulators, semiconductors and magnetic materials [completed], J.H. Brewer, A. Izadi, D.M.C. Liu, K.M. Nichol, S. Sivanandam, A.T. Warkentin (*UBC*), G.D. Morris (*TRIUMF*), V.G. Storchak (*Kurchatov Inst.*), D.G. Eshchenko (*INR, Moscow*), J.D. Brewer (*SFU*)
776. Rare earth materials with disordered spin structures [completed], J.H. Brewer (*UBC*), K. Fukamichi (*Tohoku U.*), G.M. Kalvius (*Tech. U. Munich*), D.R. Noakes, C.E. Stronach (*Virginia State U.*), R. Wäppling (*Uppsala U.*)
777. Vortex state of  $s$ -wave superconductors investigated by muon spin rotation [completed], J.C. Chakhalian, K. Chow, R. Miller, A.N. Price (*UBC*), J.H. Brewer, R.F. Kiefl (*UBC-TRIUMF*), G.M. Luke (*McMaster U.*), J.E. Sonier (*SFU*)
778.  $\pi^\pm p$  differential cross sections in the Coulomb-nuclear interference region [completed data-taking], P. Amaudruz, D. Ottewell, (*TRIUMF*), P. Camerini, E. Fragiaco, N. Grion, S. Piano, R. Rui (*INFI Trieste-U. Trieste*), K. Babcock, E. Mathie, H. Xu, D.M. Yeomans (*U. Regina*), G. Hofman, M.M. Pavan, K.J. Raywood, R. Tacik (*Regina-TRIUMF*), J. Breitschopf, H. Denz, R. Meier, F. von Wrochem, G. Wagner (*U. Tübingen*), G. Moloney, M. Sevir (*U. Melbourne*), J. Brack, J. Patterson, R. Ristinen (*U. Colorado*), E. Gibson (*California State U., Sacramento*), O. Patarakin (*Kurchatov Inst.*), G. Smith (*Jefferson Lab*)
779. Accelerator mass spectrometry experiments at ISAC [inactive], S. Calvert, A. Glass, R.R. Johnson, T. Petersen (*UBC*), Z. Gelbart, D. Ottewell (*TRIUMF*), R. Schubank (*unaffiliated*), C.S. Wong (*Inst. of Ocean Sciences*), J. Clague (*Geological Survey Canada*), M. Paul (*Hebrew U. Jerusalem*)
780. Deeply bound pionic states through  $^{208}\text{Pb}(p, ^3\text{He})^{206}\text{Pb} \otimes \pi^-$  [completed], D. Frekers, W. Garske, K. Grewer, M. Hartig, H. Wörtche (*U. Muenster*), H. Machner (*KFA, Jülich*), D. Hutcheon, P. Walden, S. Yen (*TRIUMF*), A. Opper (*U. Ohio*)
781. Investigations of the  $\pi\pi$  invariant mass distributions of nuclear ( $\pi^+, \pi^-\pi^+$ ) reactions with the CHAOS detector [completed data-taking], J. Clark, G. Moloney, M.E. Sevir (*U. Melbourne*), L. Felawka, G. Hofman, D.F. Ottewell, K. Raywood, G.R. Smith (*TRIUMF*), R. Meier (*U. Tübingen*), P. Camerini, E. Fragiaco, R. Rui (*INFN Trieste-U. Trieste*), N. Grion, S. Piano (*INFN, Trieste*), E.L. Mathie, R. Tacik, (*U. Regina*), E.F. Gibson (*Cal. State U., Sacramento*)

782. Non-fermi-liquid behaviour and other novel phenomena in heavy-fermion alloys [completed], J.E. Anderson, D.E. MacLaughlin, L. Shu (*U. California, Riverside*), R.H. Heffner, G.D. Morris (*Los Alamos Nat. Lab*), N.A. Frederick, M.B. Maple, W.M. Yuhasz (*U. California, San Diego*), O.O. Bernal (*Cal. State U., Los Angeles*), F. Callaghan, J.E. Sonier (*SFU*), B. Andraka, G.R. Stewart (*U. Florida*)
783. Paramagnetic frequency shifts in unconventional superconductors [active], R.H. Heffner, G.D. Morris (*Los Alamos Nat. Lab*), D.E. MacLaughlin (*U. California, Riverside*), G.J. Nieuwenhuys (*U. Leiden*), O.O. Bernal (*Cal. State U., Los Angeles*), J.E. Sonier (*SFU*)
784.  $\mu$ SR studies of spin singlet states in oxides [active], A. Fukaya, I. Gat, M. Larkin, A. Savici, Y.J. Uemura (*Columbia U.*), T. Ito (*Columbia U.-ETL*), H. Kageyama, K. Ueda, Y. Ueda (*U. Tokyo*), P.P. Kyriakou, G.M. Luke, M.T. Rovers (*McMaster U.*)
785. Pion double charge exchange on  $^3\text{He}$  with CHAOS [completed data-taking], R. Tacik (*TRIUMF-U. Regina*), E.L. Mathie, M. Yeomans (*U. Regina*), H. Clement, J. Graeter, R. Meier, J. Petzold, G.J. Wagner (*U. Tübingen*), E. Friedman (*Hebrew U. Jerusalem*), N. Grion (*INFN Trieste*), P. Camerini, E. Fragiaco, R. Rui (*U. Trieste*), L. Felawka, D. Ottewell, K. Raywood, G.R. Smith (*TRIUMF*), G. Hofman, B. Jamieson, G. Tagliente (*UBC*), J. Clark, G. Molony, M.E. Sevier (*U. Melbourne*), E. Gibson (*California State U. Sacramento*), H. Staudenmeyer (*U. Karlsruhe*), S. Filippov, Y. Gavrilov, T. Karavicheva (*Moscow Meson Factory*)
786. Low energy structures in the  $\beta$ -delayed particle decays of  $^9\text{C}$ ,  $^{12}\text{N}$  and  $^{17}\text{Ne}$  [completed], N. Bateman (*TRIUMF-SFU-U. Toronto*), L. Buchmann, K.P. Jackson, T. Shoppa (*TRIUMF*), J. Chow, J.D. King, C. Mortin (*U. Toronto*), T. Davison, A. Ostrowski, A. Shotter (*U. Edinburgh*), J. D'Auria (*SFU*), E. Gete, D. Measday (*UBC*), U. Giesen (*U. Alberta*)
788. Nuclear and atomic physics with the CPT spectrometer [inactive], B. Barber, K.S. Sharma (*U. Manitoba*), X. Feng (*U. Manitoba-McGill U.*), F. Buchinger, J. Crawford, S. Gulick, J. Lee, B. Moore (*McGill U.*), E. Hagberg, J. Hardy, V. Koslowsky, G. Savard (*Chalk River Nuclear Lab*)
789.  $\mu$ SR studies of magnetic fluctuations in hydronium jarosites, model Kagomé antiferromagnets [completed], A. Harrison, A.S. Wills (*U. Edinburgh*), Y. Fudamoto, K. Kojima, M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), T. Mason (*U. Toronto*)
790.  $\mu$ SR studies of stripe order in  $\text{La}_{1.6-x}\text{Sr}_x\text{Nd}_{0.4}\text{CuO}_4$  modified cuprate superconductors [completed], Y. Fudamoto, K. Kojima, M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), M. Crawford (*Du Pont*), A. Moodenbaugh (*Brookhaven Nat. Lab*), S. Uchida (*U. Tokyo*)
791. Electronic structure and dynamics of charged muonium and muonium-dopant centers in semiconductors [active], K.H. Chow (*Oxford U.*), R.F. Kiefl (*UBC*), B. Hitti (*TRIUMF*), T.L. Estle (*Rice U.*), R. Lichti (*Texas Tech. U.*), S.F.J. Cox (*Rutherford Appleton Lab*), C. Schwab (*CRN, Strasbourg*)
792. Muonium in III-V semiconductors: identification of states and transitions [completed], K.H. Chow (*Oxford U.*), S.F.J. Cox (*Rutherford Appleton Lab*), B. Hitti (*TRIUMF*), T.L. Estle (*Rice U.*), R.L. Lichti (*Texas Tech. U.*), C. Schwab (*CRN, Strasbourg*)
793. Production of an intense  $^{15}\text{O}$  beam for ISAC [completed], J. D'Auria, R. Lange (*SFU*), M. Dombisky, T. Ruth, J. Vincent (*TRIUMF*), K. Carter (*Oak Ridge Nat. Lab*), B. Zhuikov (*INR, Moscow*)
794.  $\mu^+$ SR study on the magnetic properties of  $\text{LaCoO}_3$  and  $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$  [completed], V.V. Krishnamurthy, I. Watanabe (*RIKEN*), K. Asai, N. Yamada (*U. Electro-communications*), K. Nagamine (*U. Tokyo-RIKEN*)
795.  $\mu$ SR study on non fermi liquid behaviour [completed], Y. Miyako, Y. Yamamoto (*Osaka U.*), S. Murayama (*Muroran Inst. Tech.*), K. Nagamine (*U. Tokyo*), K. Nishiyama (*U. Tokyo-RIKEN*)
796.  $\mu$ SR studies in ionic crystals doped with either colour centres or impurity [deferred], Y. Miyake, K. Nagamine, K. Nishiyama, K. Shimomura (*U. Tokyo*), A. Matsusita (*RIKEN*)
797. Magnetic correlations in the ternary equiatomic Ce compounds  $\text{CeT}_2\text{Sn}$  [completed], G. Grosse, G.M. Kalvius, A. Kratzer (*Tech. U. Munich*), R. Wäppling (*U. Uppsala*), T. Takabatake (*Hiroshima U.*), D.R. Noakes, C.R. Stronach (*Virginia State U.*), Y. Echizen (*Hiroshima U.*), H. Nakotte (*New Mexico State U.*), H.v. Löhneysen (*U. Karlsruhe*)
798.  $\mu$ SR studies on the competition of RKKY exchange and Kondo effect in  $\text{CeT}_2\text{X}_2$  compounds (T=transition metal, X=Si,Ge) [completed], H.-H. Klauss, W. Kopmann, F.J. Litterst, W. Wagener, H. Walf (*Tech. U. Braunschweig*), E. Baggio Saitovitch, M.B. Fontes (*CBPF Rio de Janeiro*), A. Krimmel, A. Loidl (*U. Augsburg*)
799. Hyperfine structure and site determination of ( $\mu^-$ O) system in  $\text{LaSuCuO}$  high  $T_c$  superconductors [completed], H. Kojima, I. Tanaka, E. Torikai (*Yamanashi U.*), K. Nishiyama (*U. Tokyo-RIKEN*), K. Nagamine, K. Shimomura (*U. Tokyo*), I. Watanabe (*RIKEN*), T.P. Das (*State U. New York*)



801. Studies of multi-phonon states via  $\beta$ -decay [completed], C.J. Barton, M.A. Caprio, R.F. Casten, N.V. Zamfir (*Yale U.*), D.S. Brenner (*Clark U.*), G.C. Ball, K.P. Jackson (*TRIUMF*)
802. Superdeformation and smooth band termination on and near the  $N = Z$  line: Part 1  $^{60}\text{Zn}$  [active], J.A. Cameron, S. Flibotte, D.S. Haslip, J. Nieminen, C. Svensson, J.C. Waddington, J.N. Wilson (*McMaster U.*), G. Ball (*TRIUMF*), A. Galindo-Uribarri, D.C. Radford (*Oak Ridge Nat. Lab*), D. Ward (*Lawrence Berkeley Nat. Lab*)
803. Experimental studies of interaction and properties of neutron-rich nuclei at ISAC [inactive], A.S. Iljinov, A.V. Klyachko, E.S. Konobeevsky, M.V. Morodovskoy, M.A. Prohvatilov, A.I. Reshetin, Yu.V. Ryabov, K.A. Shileev, V.A. Simonov, V.M. Skorkin, S.V. Zuyev (*INR, Moscow*)
804. Muonium in gallium nitride [completed], B.A. Bailey, R.L. Lichti (*Texas Tech. U.*), K.H. Chow (*U. Alberta*), B. Hitti (*TRIUMF*), S.F.J. Cox (*Rutherford Appleton Lab*), E.A. Davis (*Leicester U.*)
805. A study of the  $^{13}\text{N}(p, \gamma)^{14}\text{O}$  reaction with a  $^{13}\text{N}$  beam [active], R.E. Azuma, J. Chow, J.D. King, A.C. Morton (*U. Toronto*), N. Bateman (*TRIUMF-Toronto*), L. Buchmann, K.P. Jackson, T. Shoppa (*TRIUMF*), J.M. D'Auria (*SFU*), U. Giesen (*SFU-TRIUMF*), G. Roy (*U. Alberta*), W. Galster (*U. Catholique de Louvain*), A.C. Shotter (*U. Edinburgh*), R.N. Boyd (*Ohio State U.*), U. Greife, C. Rolfs, F. Strieder, H.-P. Trautvetter (*Ruhr U. Bochum*)
806. Excitation of high-spin isomeric states and compound nucleus formation by intermediate energy protons and stopped pions [completed data-taking], A.S. Iljinov, V.M. Kokhanyuk, B.L. Zhuikov (*INR, Moscow*), I. Liu, J. Vincent, A.Z. Zyuzin (*TRIUMF*)
808. Spin glass order in magnets frustrated by competing ferro- and antiferromagnetic exchange [completed], G.M. Kalvius, A. Kratzer, E. Schreier (*Techn. U. Munich*), R. Wäppling (*U. Uppsala*), D.R. Noakes (*Virginia State U.*), J. Gal (*Beer Sheva U.*), W. Schäfer (*Bonn U.*)
809. Quantum diffusion of muonium in crystals with orientational degrees of freedom [completed], D. Arseneau, B. Hitti, S.R. Kreitzman (*TRIUMF*), J.H. Brewer, A. Izadi, G.D. Morris (*UBC*), D.G. Eshchenko (*INR, Moscow*), V.G. Storchak (*Kurchatov Inst.*), J.D. Brewer (*SFU*)
810. First direct study of the  $^{23}\text{Mg}(p, \gamma)^{24}\text{Al}$  reaction with a recoil mass separator (DRAGON) [active], N.P.T. Bateman, J.M. D'Auria, D. Hunter, R. Korteling (*SFU*), R.N. Boyd (*Ohio State U.*), L. Buchmann, R. Helmer, D. Hutcheon, K.P. Jackson, A. Olin, J. Rogers (*TRIUMF*), U. Giesen, G. Roy (*U. Alberta*), L. Gialanella, U. Greife, C. Rolfs, F. Strieder, H.-P. Trautvetter (*Ruhr U. Bochum*), A. Hussein (*UNBC*), M. Junker (*INFN Gran Sasso*), J.D. King (*U. Toronto*), P.D. Parker (*Yale U.*), A. Shotter (*U. Edinburgh*), M. Wiescher (*U. Notre Dame*)
811. A direct study of the  $^{19}\text{Ne}(p, \gamma)^{20}\text{Na}$  reaction with a recoil mass separator (DRAGON) [active], N.P.T. Bateman, J.M. D'Auria, D. Hunter, R. Korteling (*SFU*), R.N. Boyd (*Ohio State U.*), L. Buchmann, R. Helmer, D. Hutcheon, K.P. Jackson, A. Olin, J. Rogers (*TRIUMF*), U. Giesen, G. Roy (*U. Alberta*), L. Gialanella, U. Greife, C. Rolfs, F. Strieder, H.-P. Trautvetter (*Ruhr U. Bochum*), A. Hussein (*UNBC*), M. Junker (*INFN Gran Sasso*), J.D. King (*U. Toronto*), P.D. Parker (*Yale U.*), A. Shotter (*U. Edinburgh*), M. Wiescher (*U. Notre Dame*)
812. Proposed study of the  $^8\text{Li}(\alpha, n)^{11}\text{B}$  reaction [active], R.N. Boyd, A. Murphy, L. Sahin, E. Smith, M. Zahar (*Ohio State U.*), L. Buchmann, P. Walden (*TRIUMF*), J.M. D'Auria (*SFU*), J.D. King (*U. Toronto*), M. Nishimura, S. Nishimura, I. Tanihata (*RIKEN*)
813. A study of the  $^{15}\text{O}(\alpha, \gamma)^{19}\text{Ne}$  reaction at the astrophysically important energy [active], N.P.T. Bateman, J.M. D'Auria, D. Hunter, R. Korteling (*SFU*), R.N. Boyd (*Ohio State U.*), L. Buchmann, R. Helmer, D. Hutcheon, K.P. Jackson, A. Olin, J. Rogers (*TRIUMF*), U. Giesen, G. Roy (*U. Alberta*), U. Greife, C. Rolfs, F. Strieder, H.-P. Trautvetter (*Ruhr U. Bochum*), A. Hussein (*UNBC*), J.D. King (*U. Toronto*), P.D. Parker (*Yale U.*), A. Shotter (*U. Edinburgh*), M. Wiescher (*U. Notre Dame*)
814.  $\mu\text{SR}$  studies of unconventional superconductivity in  $\text{Sr}_2\text{RuO}_4$  [active], Y. Fudamoto, K.M. Kojima, M. Larkin, G.M. Luke, J. Merrin, B. Nachumi, Y.J. Uemura (*Columbia U.*), Y. Maeno (*Kyoto U.*), R.J. Cava (*Princeton U.*)
815.  $\beta$ -NMR investigation of magnetic multilayers and giant magnetoresistance [active], J. Chakhalian, W.A. MacFarlane, R. Miller, (*UBC*), J.H. Brewer, R.F. Kiefl (*UBC-TRIUMF*), P. Amaudruz, R. Baartman, T.R. Beals, J. Behr, S. Daviel, S.R. Kreitzmann, T. Kuo, C.D.P. Levy, M. Olivo, R. Poutissou, Z. Salman, G.D. Wight (*TRIUMF*) S.R. Dunsiger, R. Heffner, G.D. Morris (*Los Alamos Nat. Lab*), C. Bommas (*U. Bonn*), A. Hatakeyama, Y. Hirayama, T. Shimoda (*Osaka U.*), K.H. Chow (*U. Alberta*), J.E. Elenewski, L.H. Greene (*U. Illinois-Urbana-Champagne*)
816. Semiconductor quantum wells investigated by  $\beta$ -NMR [active], J.H. Brewer, J.C. Chakhalian, S. Dunsiger, R. Miller, T. Tiedje (*UBC*), M. Gingras (*U. Waterloo*), B. Ittermann (*U. Marburg*), B. Hitti, P. Levy, S.R. Kreitzman, A. Zelenski (*TRIUMF*), R.F. Kiefl (*TRIUMF-UBC*)

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817.  $\beta$ -NMR investigation of type II superconductors [active], D. Bonn, J.H. Brewer, J.C. Chakhalian, S. Dunsiger, W. Hardy, R. Liang, R.F. Kiefl, W.A. MacFarlane, R. Miller, J. Sonier (*UBC*), M. Gingras (*U. Waterloo*), R. Heffner (*Los Alamos Nat. Lab*), B. Itterman (*U. Marburg*), B. Hitti, P. Levy, S.R. Kreitzman, A. Zelenski (*TRIUMF*), G.M. Luke (*Columbia U.*), J.W. Brill (*U. Kentucky*)
818.  $\mu^+$ SR study of magnetic ordering in the one-dimensional spin-1/2 antiferromagnet copper benzoate [completed], J.C. Chakhalian, S. Dunsiger, R.F. Kiefl, W.A. MacFarlane, R. Miller, J. Sonier (*UBC*), C. Broholm, D.C. Dender, P. Hammar, D. Reich (*Johns-Hopkins U.*), G. Luke, T. Uemura (*Columbia U.*)
819.  $\mu^+$ SR studies of the antiferromagnetic instability and metastable state in colossal magnetoresistance system  $(\text{Nd}_{1-y}\text{Sm}_y)_{1/2}\text{Sr}_{1/2}\text{MnO}_3$  ( $y = 0.875$ ) [completed], W. Higemoto, I. Watanabe (*RIKEN*), K. Nishiyama (*KEK*), K. Nagamine (*RIKEN-KEK*), A. Asamitsu, H. Kuwahara, Y. Tokura (*JRCAT, U. Tokyo*)
821. Shape coexistence and shape mixing in neutron-deficient platinum isotopes: on-line nuclear orientation studies of the decays of  $^{182}\text{Au}$  and  $^{186}\text{Au}$  [active], K.S. Krane (*Oregon State U.*), J.L. Wood (*Georgia Inst. Tech.*), J. D'Auria (*SFU*)
822. Effect of disorder on quantum spin liquid state [completed data-taking], W. Higemoto, R. Kadono, A. Koda, K. Ohishi, (*KEK-IMSS*), M. Nohara, H. Takagi, H. Ueda, C. Urano (*U. Tokyo*)
823. Pure fermi decay in medium mass nuclei [active], G.C. Ball, R. Beaton, P. Bricault, G. Hackman, P. Klages, J.A. Macdonald\*, E. Vandervoort (*TRIUMF*), D.F. Hodgson (*U. Surrey-TRIUMF*), J. Cerny, D.M. Moltz, J. Powell (*Lawrence Berkeley Lab*), G. Savard (*Argonne Nat. Lab*), J.C. Hardy, V. Iacob (*Texas A&M U.*), S. Bishop, J. D'Auria (*SFU*), J.R. Leslie, H.-B. Mak, I.S. Towner (*Queen's U.*), D. Kulp, J.L. Wood (*Georgia Inst. Tech.*), E.F. Zganjar, A. Piechaczek (*Louisiana State U.*)
824. Measurement of the astrophysical rate of the  $^{21}\text{Na}(p,\gamma)^{22}\text{Mg}$  reaction [active], S. Bishop, J.M. D'Auria, D. Hunter, M. Lamey, W. Liu, C. Wrede, (*SFU*), L. Buchmann, D. Hutcheon, A.M. Laird, A. Olin, D. Ottewell, J.G. Rogers (*TRIUMF*), S. Engel, F. Strieder (*Ruhr U.*), D. Gigliotti, A. Hussein (*UNBC*), R. Azuma, J.D. King (*U. Toronto*), R. Lewis, P.D. Parker (*Yale U.*), S. Kubono, S. Michimasa (*U. Tokyo*), M. Chatterjee (*Saha Inst., Calcutta*), U. Greife, C. Jewett (*Colorado School of Mines*), A.A. Chen (*McMaster U.*), M. Hernanz, J. José (*Inst. d'Estudis Espacials de Catalunya, Barcelona*)
826. Studies of ultrathin magnetic films with implanted isotopes [active], R. Kiefl, J. Pond, B.G. Turrell (*UBC*), C.A. Davis, P.P.J. Delheij (*TRIUMF*), K.S. Krane, J. Loats, P. Schmelzenbach, C. Stapels (*Oregon State U.*), D. Groh, W. Kumarasiri, P. Mantica (*Michigan State U.*), D. Kulp, J.L. Wood, (*Georgia Inst. Tech.*)
827. Parity violation in  $^{182}\text{W}$  [active], J. D'Auria (*TRIUMF-SFU*), C.A. Davis, P.P.J. Delheij (*TRIUMF*), R. Kiefl, A. Kotlicki, J. Pond, B. Turrell (*UBC*), K.S. Krane (*Oregon State U.*)
828. Nuclear moments in the mass-100 region [active], K.S. Krane, J. Loats, P. Schmelzenbach, C. Stapels (*Oregon State U.*), D. Kulp, J.L. Wood (*Georgia Inst. Tech.*), C.A. Davis, P.P.J. Delheij (*TRIUMF*), D. Groh, W. Kumarasiri, P. Mantica (*Michigan State U.*), R. Kiefl, J. Pond, B.G. Turrell (*UBC*)
829. Muonium as a hydrogen isotope: reactions in solution [completed], D.P. Chong, G.B. Porter, D.C. Walker (*UBC*), K. Venkateswaran (*Hindustan Lever Ltd.*), H.A. Gillis (*St. Francis Xavier U.*)
830. The hot entropy bubble and the decay of  $^9\text{Li}$  [active], N. Bateman (*TRIUMF-SFU-Toronto*), L. Buchmann, K.P. Jackson, S. Karataglidis, T. Shoppa, E. Vogt (*TRIUMF*), J. Chow, J.D. King, C. Mortin (*U. Toronto*), T. Davison, A. Ostrowski, A. Shotter (*U. Edinburgh*), J. D'Auria, U. Giesen (*SFU*), E. Gete, D. Measday (*UBC*)
831. Magnetic properties of  $\text{REBa}_2\text{Cu}_3\text{O}_x$  [completed data-taking], D. Andreica, F.N. Gygax, M. Pinkpank, A. Schenck (*ETH Zürich*), B. Hitti (*TRIUMF*), A. Amato (*PSI*), J.H. Brewer (*UBC-TRIUMF*)
832. Study of the non-magnetic-magnetic transition in the  $\text{Yb}(\text{Cu}_{1-x}\text{Ni}_x)_2\text{Si}_2$  system [completed data-taking], D. Andreica, F. Gygax, M. Pinkpank, A. Schenck (*ETH Zürich-PSI*), A. Amato (*PSI*), B. Hitti (*TRIUMF*)
833.  $\mu$ SR studies of doped  $\text{MnSi}$  and  $\text{V}_{2-y}\text{O}_3$ : non-fermi-liquid behaviour, spin fluctuations and itinerant magnetism [active], A. Fukaya, I.M. Gat, M. Larkin, A.J. Millis, P.L. Russo, A.T. Savici, Y.J. Uemura (*Columbia U.*), P.P. Kyriakou, G.M. Luke, C.R. Wiebe (*McMaster U.*), Y.V. Sushko (*U. Kentucky*), R.H. Heffner (*Los Alamos Nat. Lab*), D.E. MacLaughlin (*U. California, Riverside*), D. Andreica (*PSI*), M. Kalvius (*Tech. U. Munich*)
834.  $\mu$ SR study of transverse spin freezing in bond-frustrated magnets [active], A.D. Beath, D.H. Ryan, (*McGill U.*), J.M. Cadogan (*U. New South Wales*), J. van Lierop (*U. Michigan*)
835.  $\mu$ SR studies of intercalated HfN and Bi2212 superconductors [active], M. Greven, N. Kaneko, (*Stanford U.*), I.M. Gat, M.I. Larkin, P.L. Russo, A. Savici, Y.J. Uemura, emph(*Columbia U.*), G.M. Luke, G.J. MacDougall, C.R. Wiebe (*McMaster U.*), Y. Ando (*U. Tokyo*)
836. Elasticks [active], R.E. Azuma, J.D. King (*U. Toronto*), G. Ball, L. Buchmann, K.P. Jackson, B. Jennings, S. Karataglidis, E. Vogt (*TRIUMF*), N. Bateman (*TRIUMF-SFU-U. Toronto*), T. Davison, A. Ostrowski, A. Shotter (*U. Edinburgh*), J. D'Auria (*SFU*), W. Galster (*U. Catholique de Louvain*), G. Roy (*U. Alberta*)

837. Pion-induced errors in memory chips [completed], J.T. Brack, G. Hofman, J. Patterson R.J. Peterson, R.A. Ristinen (*U. Colorado*), J.F. Ziegler (*IBM*), M.E. Nelson (*US Naval Academy*), G. Smith (*TRIUMF*)
838. Measurement of the  $\pi^- p \rightarrow \gamma\gamma n$  capture mode of pionic hydrogen [completed data-taking], T. Gorringe, M. Kovash, S. Tripathi, P. Żolnierczuk (*U. Kentucky*), D. Armstrong, J. Clark (*Coll. of William & Mary*), M. Hasinoff (*UBC*), D. Healey, D. Wright (*TRIUMF*)
839. Thermal test of prototype high power ISAC target [completed], D. Drake, D. Liska, W.L. Talbert, M. Wilson (*Amparo Corp.*), P. Bricault, M. Dombisky, P. Schmor (*TRIUMF*), E. Dalder, C. Landram, K. Sale, D. Slaughter (*Lawrence Livermore Nat. Lab.*), J. Nolen, G. Savard (*Argonne Nat. Lab.*), G. Alton (*Oak Ridge Nat. Lab.*)
840. Muon transfer from excited states of muonic hydrogen with x-ray measurement [active], S. Sakamoto, K. Shimomura (*KEK*), K. Nagamine (*KEK-RIKEN*), K. Ishida, N. Kawamura, Y. Matsuda, T. Matsuzaki, S.N. Nakamura, P. Strasser (*RIKEN*)
841. ISAC beam and target development [active], P. Bricault, M. Dombisky (*TRIUMF*)
842. Muonium-substituted free radicals in sub- and supercritical water [completed], J.-C. Brodovitch, S. Kecman, B. McCollum, I. McKenzie, P.W. Percival (*SFU*), B. Addison-Jones (*Douglas College*)
843. Quadrupole ordering in dense Kondo system studied by  $\mu$ LCR [completed data-taking], J. Akimitsu, K. Kakuta, K. Ohishi (*Aoyama Gakuin U.*), W. Higemoto, R. Kadono (*KEK-IMSS*), T. Yokoo (*CREST*)
844. Quantum impurities in one dimensional spin 1/2 chains [completed], I. Affleck, J. Brewer, J. Chakhalian, S. Dunsiger, R.F. Kiefl, R. Miller, A. Price (*UBC*), S. Eggert (*Chalmers U.*), B. Hitti (*TRIUMF*), A.A. Keren (*Israel Inst. Tech.*), W.A. MacFarlane (*U. Paris-Sud*), G. Morris (*UBC-TRIUMF*), Y.J. Uemura (*Columbia U.*), M. Verdager (*CNRS*), I. Yamada (*Chiba U.*)
845.  $\mu$ SR studies of vortex phases in (Ba,K)BiO<sub>3</sub> [completed], G.M. Luke, M.A. Lumsden (*McMaster U.*), Y. Fudamoto, M.I. Larkin, Y.J. Uemura (*Columbia U.*), K.M. Kojima (*U. Tokyo*), M. Gingras (*U. Waterloo*), I. Jourard, T. Klein, J. Marcus (*U. Grenoble*)
846. Complex order parameter symmetry in YB<sub>2</sub>Cu<sub>3</sub>O<sub>7- $\delta$</sub>  at low  $T$  and high magnetic field [completed], D.A. Bonn, J.H. Brewer, W.N. Hardy, R.F. Kiefl, R.X. Liang, J.-M. Ménard, R.I. Miller (*UBC*), D. Babineau, K.F. Poon, J.E. Sonier (*SFU*), C.E. Stronach (*Virginia State U.*)
847. Electron-doped high- $T_c$  superconductors [active], P. Fournier (*U. Sherbrooke*), F.D. Callaghan, C.V. Kaiser, M. Laulajainen, J.E. Sonier (*SFU*), R.L. Greene (*U. Maryland*)
848.  $\mu$ SR investigation of the vortex state of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6+x</sub> [completed data-taking], D.A. Bonn, J.C. Chakhalian, K. Chow, W.N. Hardy, R.X. Liang, R. Miller, A.N. Price (*UBC*), J.H. Brewer, R.F. Kiefl (*UBC-TRIUMF*), J. Sonier (*SFU*)
849. Spin structure and magnetic volume fraction of La<sub>214</sub> systems: revisiting “1/8”, “stripes”, “spin glass”, and “swiss cheese” [completed], K.M. Kojima (*U. Tokyo*), Y. Fudamoto, I.M. Gat, M.I. Larkin, A.T. Savici, Y.J. Uemura (*Columbia U.*), G.M. Luke (*McMaster U.*), M.A. Kastner, Y.S. Lee (*MIT*), R.J. Birgeneau (*MIT-U. Toronto*), K. Yamada (*Kyoto U.*)
850. Effects of dilute (Cu,Zn) substitution in spin gap systems SrCu<sub>2</sub>O<sub>3</sub> and CuGeO<sub>3</sub> [completed], Y. Fudamoto, I. Gat, M.I. Larkin, Y.J. Uemura (*Columbia U.*), K.M. Kojima, K. Manabe, K. Uchinokura (*U. Tokyo*), G.M. Luke (*McMaster U.*), M. Azuma, M. Takano (*Kyoto U.*)
851.  $\mu$ SR in ruthenate and cuprate high- $T$  compounds [active], D.R. Harshman (*Physikon Research Corp.*), M.K. Wu (*Nat. Tsing Hua U.*), F.Z. Chien (*Tamkang U.*), J.D. Dow (*Arizona State U.*), A.J. Greer (*Gonzaga U.*), A. Goonewardene, W.J. Kossler, X. Wan (*Coll. of William & Mary*), E. Koster, D.Ll. Williams (*UBC*), D.R. Noakes, C.E. Stronach (*Virginia State U.*), A.T. Fiory (*New Jersey Inst. Tech.*), A. Erb (*Walther-Meissner-Inst. Tieftemperaturforschung, Garching*), J.P. Franck, I. Issac (*U. Alberta*), Z.F. Ren, D.Z. Wang (*Boston College*), R.N. Kleiman (*Bell Labs*), R.C. Haddon (*U. California, Riverside*), W. Kang (*U. Chicago*)
852. Magnetic phases in geometrically frustrated rare earth pyrochlores [active], R. Kiefl (*UBC-TRIUMF*), S. Dunsiger, B.D. Gaulin, (*McMaster U.*), M.J.P. Gingras (*U. Waterloo*), G.D. Morris, J.M. Roper (*Los Alamos Nat. Lab.*), R. Miller (*U. Pennsylvania*), A.N. Price (*U. Erlangen-Nuernberg*), J.S. Gardner (*NIST*), S.T. Bramwell (*U. College London*), K. Chow (*U. Alberta*), J. Chakhalian (*MPI, Stuttgart*)
856.  $\mu$ SR study on CuO [active], W. Higemoto, K. Nishiyama, K. Shimomura (*KEK*), M. Suzuki, S. Tanaka, N. Tsutsumi, X.G. Zheng (*Saga U.*)
857. Investigation of the magnetic properties of the cerium compound probed by negative muon [active], W. Higemoto, K. Nagamine, K. Nishiyama, K. Shimomura (*KEK*), V.V. Krishnamurthy (*RIKEN*)
858. Repolarization of muonic atom in semiconductors by laser optical pumping in solids [active], W. Higemoto, R. Kadono, K. Nagamine, K. Nishiyama K. Shimomura (*KEK*)

859. A search for non-Markovian  $\mu^+$  diffusion in solids:  $\mu^+$  spectral spin hopping in high transverse field [inactive], G. Alexandrowicz, A. Grayevsky, N. Kaplan, T. Tashma (*Racah Inst. Physics*), A. Schenck (*ETH Zürich*)
860. Mass and charge transport in disordered media: orientational glasses [completed], J.H. Brewer, A. Izadi, D.M.C. Liu, K.M. Nichol, S. Sivanandam, A.T. Warkentin (*UBC*), G.D. Morris (*TRIUMF*), V.G. Storchak (*Kurchatov Inst.*), D.G. Eshchenko (*INR, Moscow*), J.D. Brewer (*SFU*)
862. Polarization observables in the  $\bar{p}(\pi^\pm, \pi^+, \pi^\pm)$  reactions: a test of chiral perturbation theory [completed data-taking], K. Craig, G. Hofman, M.M. Pavan, R. Tacik (*Regina-TRIUMF*), E. Mathie (*U. Regina*), J. Breitschopf, H. Denz, R. Meier, G. Wagner (*U. Tübingen*), E. Gibson (*California State U. Sacramento*), C.M. Riedel (*Montana State U. Bozeman*)
863. Magnetic dipole moments measurements of  $^{75,77,79}\text{Ga}$  using low temperature nuclear orientation and  $\beta$ -NMR [completed data-taking], A.D. Davies, P.F. Mantica, T.J. Mertzimekis (*Michigan State U.*), C.A. Davis, P.P.J. Delheij (*TRIUMF*), B. Turrell (*UBC-TRIUMF*)
864. Measurement of the two-photon capture mode of the pionic deuterium atom [completed data-taking], S. Arole, T. Gorringer, C. Nenkov, S. Tripathi, P. Żohierczuk (*U. Kentucky*), D. Armstrong, J. Clark (*Coll. of William & Mary*), M. Hasinoff (*UBC*), D. Wright (*TRIUMF*)
865. Electronic structure and diffusion kinetics of muonium in group III nitrides [active], W. Higemoto, R. Kadono, K. Nishiyama, K. Shimomura (*KEK-IMSS*), M. Mizuta (*NEC Corp.*), M. Saito (*NEC Inf. Syst. Ltd.*)
866.  $S = 0$  doping to the  $1d$  spin chain: comparison between the  $S = 1/2$  and  $S = 1$  chains [active], I. Eisaki, K.M. Kojima, T. Masuda, S. Uchida, K. Uchinokura (*U. Tokyo*), Y. Fudamoto, I. Gat, M.I. Larkin, Y.J. Uemura (*Columbia U.*), G.M. Luke (*McMaster U.*)
867.  $\mu\text{SR}$  studies of magnetic properties of strontium/calcium ruthenates [active], Y. Fudamoto, I. Gat, M. Larkin, A. Savici, Y.J. Uemura (*Columbia U.*), G.M. Luke (*McMaster U.*), K. Kojima (*U. Tokyo*), S. Ikeda, Y. Maeno (*Kyoto U.*)
868. Magnetic correlations in impurity doped one dimensional spin systems [active], D. Baabe, H.-H. Klauss, W. Kopmann, F.J. Litterst, D. Mienert (*Tech. U. Braunschweig*), U. Ammerahl, B. Büchner (*U. Köln*), C. Geibel (*MPI Dresden*)
869. Measurement of the  $^1\text{H}(\pi^-, \pi^0)n$  differential cross section at 100–140 MeV/ $c$  and forward angles [completed data-taking], S. Arole, T. Gorringer, M. Kovash, S. Tripathi, P. Żohierczuk (*U. Kentucky*), M. Hasinoff (*UBC*), D. Armstrong (*Coll. of William & Mary*), M. Pavan (*TRIUMF*)
870. Breakout from the hot CNO cycle via the  $^{18}\text{Ne}(\alpha, p)^{21}\text{Na}$  reaction [active], T. Davinson, A. Ostrowski, F. Sarazin, A. Shotter, P. Woods (*U. Edinburgh*), L. Buchmann, J. D’Auria (*TRIUMF*), J. Daly, J. Görres, M. Wiescher (*U. Notre Dame*), P. Leleux (*U. Catholique de Louvain*)
871. Meson and quark effects in nuclear  $\beta$ -decay of  $^{20}\text{Na}$  [active], H. Fujiwara, M. Fukuda, K. Matsuta, M. Mihara, T. Minamisono, T. Nagatomo, M. Ogura, T. Sumikama (*Osaka U.*), R. Baartman, J. Behr, P. Bricault, M. Dombisky, K.P. Jackson, P. Levy (*TRIUMF*), R. Kiefl (*UBC*), K. Koshigiri (*Osaka Kyoiku U.*), M. Morita (*Josai Int. U.*), K. Minamisono (*JSPS-TRIUMF*)
872. Weak interaction studies with trapped radioactive ions [active], J. Dilling, D. Melconian (*SFU*), G. Savard (*Argonne Nat. Lab-U. Chicago*), G.C. Ball, J.A. Behr, P. Bricault, K.P. Jackson (*TRIUMF*), F. Buchinger, J.E. Crawford, J.K.P. Lee, R.B. Moore (*McGill U.*), K.S. Sharma (*U. Manitoba*)
874. Study of  $^{19}\text{Ne}$   $\alpha$ -decay properties related to the hot-CNO breakout reaction  $^{15}\text{O}(\alpha, \gamma)^{19}\text{Ne}$  [active], T. Davinson, D. Groombridge, A.M. Laird, A.N. Ostrowski, F. Sarazin, K. Schmidt, A.C. Shotter, P.J. Woods (*U. Edinburgh*), L. Buchmann (*TRIUMF*), S. Cherubini, P. Leleux (*U. Catholique de Louvain*), J. Hinnefeld (*U. South Bend*)
875. Muon scattering in low  $Z$  materials for muon cooling studies [active], M. Curtis-Rouse, T.R. Edgecock, M. Ellis, J. Lidbury, W. Murray, P.R. Norton, K.J. Peach (*Rutherford Appleton Lab*), K. Ishida, Y. Matsuda (*RIKEN*), T. McMahon, J.A. Wilson (*U. Birmingham*), G. Barber, A. Jamdagni, K. Long, E. McKigney (*Imp. Coll., London*), W. Allison, S. Holmes (*U. Oxford*), S. Benveniste, D. Cline, Y. Fukui, K. Lee, Y. Pischalnikov (*UCLA*), R. Fernow (*Brookhaven Nat. Lab*), P. Gruber, A. Lombardi (*CERN*), S.N. Nakamura (*U. Tohoku*), G. Marshall (*TRIUMF*), A. Bogacz (*Jefferson Lab*)
876. Disordered magnetism near magnetic instabilities in  $f$ -electron materials [completed], D.R. Noakes, C.E. Stronach (*Virginia State U.*), G.M. Kalvius (*Tech. U. Munich*), A. Loidl (*Augsburg U.*), H. Nakotte (*New Mexico State U.*), R. Wäppling (*Uppsala U.*), A.V. Andreev (*Charles U.*)
877.  $\mu\text{SR}$  studies of strongly correlated electron systems under a high pressure [active], W. Higemoto, R. Kadono, A. Koda, K. Nishiyama (*KEK-MSL*), K. Satoh (*Saitama U.*), Y. Kitaoka, K. Ishida (*Osaka U.*), K. Nagamine (*RIKEN-KEK-MSL*)

878.  $\mu^+$ SR studies on magnetism of layered compounds  $\text{Cu}_2(\text{OH})_3\text{X}$  ( $\text{X}=\text{Cl}, \text{Br}, \text{I}$ ) [active], G. Maruta, K. Nishiyama (*KEK-MSL*), S. Takeda (*Gunma U.*)
879. Proton- $^{21}\text{Na}$  elastic scattering at astrophysical energies [completed data-taking], L. Buchmann (*TRIUMF*), T. Davinson, A. Ostrowski, F. Sarazin, A. Shotter, P. Woods (*U. Edinburgh*), R.E. Azuma, J.D. King (*U. Toronto*), A. Chen (*TRIUMF-SFU*), J. Daly, J. Görres, M. Wiescher (*U. Notre Dame*), J. D'Auria (*SFU*), E.S. Konobeevsky, M.V. Mordovskoy, V.A. Simonov, A.V. Stepanov, V.P. Zavarzina (*INR, Moscow*)
880. Ortho-para effect of muon catalyzed fusion in solid deuterium [completed], K. Ishida, Y. Matsuda (*RIKEN*), K. Nagamine, K. Shimomura, A. Toyoda (*KEK*), S.N. Nakamura (*Tohoku U.*)
881. Magnetism of Ce-based heavy fermion superconductor [active], W. Higemoto, R. Kadono, A. Koda, K. Ohishi (*KEK-IMSS*), K. Ishida, Y. Kawasaki, Y. Kitaoka (*Osaka U.*), C. Geibel, F. Steglich (*Max-Planck Inst.*)
882.  $\mu$ SR studies of unconventional superconductivity in an organic superconductor  $(\text{TMTSF})_2\text{ClO}_4$  [active], I.M. Gat, M.I. Larkin, A. Savici, Y.J. Uemura (*Columbia U.*), T. Ito (*Columbia U.-ETL*), P. Kyriakou, G.M. Luke, M. Rovers (*McMaster U.*), K.M. Kojima (*U. Tokyo*), P.M. Chaikin, I.J. Lee (*Princeton U.*), M.J. Naughton (*Boston Coll.*)
883. Muonium-substituted methyl and associated free radicals [active], J.-C. Brodovitch, B. McCollum, P.W. Percival (*SFU*), K. Ghandi (*UBC-TRIUMF*), I. McKenzie (*U. Stuttgart*)
884.  $\mu$ SR studies on magnetic ground state of  $S = 1/2$  kagomé spin system  $\text{Cu}_3\text{V}_2\text{O}_7(\text{OH})\cdot 2\cdot 2\text{H}_2\text{O}$  [active], A. Fukaya, I.M. Gat, M.I. Larkin, A. Savici, Y.J. Uemura (*Columbia U.*), T. Ito (*CERC-AIST*), A. Keren (*Technion-Israel Inst. of Tech.*), P.P. Kyriakou, G.M. Luke, M.T. Rovers (*McMaster U.*), Z. Hiroi (*U. Tokyo*)
885. High-TF line-shape measurement of impurity-doped high- $T_c$  cuprates [active], K.M. Kojima, Y. Kojima, Y. Maeda, T. Okamura, S. Uchida (*U. Tokyo*), I. Gat, T. Itoh, A. Kinkhabwala, M.I. Larkin, Y.J. Uemura (*Columbia U.*), G.M. Luke (*McMaster U.*), S.R. Dunsiger, R.F. Kiefl, R. Miller (*UBC*), J.E. Sonier (*Los Alamos Nat. Lab*)
886. Study of field dependent  $T_1$  relaxation and coexistence of order parameters in the (anti)ferromagnetic ruthenate-cuprate superconductors  $\text{RuSr}_2(\text{Gd}, \text{Eu}, \text{Y})\text{Cu}_2\text{O}_8$  [active], C. Bernhard (*Max Planck Inst.*), C. Niedermayer, V. Oehmichen (*U. Konstanz*), E.J. Ansaldo (*U. Saskatoon*), J.L. Tallon (*NZIRD*)
887. Search for broken time reversal symmetry in high temperature superconductors [active], P. Kyriakou, G.M. Luke, M. Rovers (*McMaster U.*), R.H. Heffner (*Los Alamos Nat. Lab*), M.I. Larkin, Y.J. Uemura (*Columbia U.*), J. Sonier (*SFU*), K.M. Kojima (*U. Tokyo*)
888. Test of delayed-muonium model for hydrocarbon liquids [completed], D.C. Walker (*UBC-TRIUMF*), H.A. Gillis (*St. Francis Xavier U.*), G.B. Porter (*UBC*), S. Karolczak (*Politechnika, Poland*)
889. Study of field induced gap in Cu benzoate [active], Y. Ajiro, T. Asano, Y. Inagaki (*Kyushu U.*), H. Nojiri (*Tohoku U.*), W. Higemoto, R. Kadono, A. Koda (*KEK-IMSS*)
890. Anisotropic Kondo effect in  $\text{Ce}_{0.8}\text{La}_{0.2}\text{Al}_3$ ? [completed], D.E. MacLaughlin (*U. California, Riverside*), O.O. Bernal (*Cal. State U., Los Angeles*), R.H. Heffner (*Los Alamos Nat. Lab*), G.M. Luke (*McMaster U.*), G.J. Nieuwenhuys (*U. Leiden*), J.E. Sonier (*SFU*), B. Andraka (*U. Florida*)
891. Superconductivity and magnetism in  $\text{Ce}_n\text{T}_m\text{In}_{3n+2m}$  [active], R.H. Heffner, G.D. Morris, J. Sarrao (*Los Alamos Nat. Lab*), J.E. Sonier (*SFU*), D.E. MacLaughlin (*U. California, Riverside*), G.J. Nieuwenhuys (*U. Leiden*), O.O. Bernal (*Cal. State U., Los Angeles*)
892. Resonance ionization spectroscopy of stable and radioactive nuclides at TISOL [deferred] F. Buchinger, J.E. Crawford, S. Gulick, J.K.P. Lee (*McGill U.*), K. Sharma (*U. Manitoba*), J. Pinard (*Lab Aimé Cotton, Orsay*)
893. Hyperfine field of Rb in the ferromagnets Fe, Ni, Co [active], P. Bricault, C.A. Davis, P.P.J. Delheij, B. Roberts, (*TRIUMF*), K. Nishimura (*Toyoma U.*), S. Ohya (*Niigata U.*), E. Rezaie (*UBC*)
894. Muonium kinetics and free radical formation in solutions of fullerenes [active], B. Addison-Jones (*Douglas College*), J.-C. Brodovitch, S. Kecman, I. McKenzie, P.W. Percival (*SFU*)
895. The vortex structure and magnetism of electron-doped cuprate superconductors [active], K.M. Kojima, S. Uchida (*U. Tokyo*), W. Higemoto, R. Kadono, A. Koda (*KEK*), M. Azuma, M. Fujita, M. Takano, K. Yamada (*Kyoto U.*), K. Ishida, Y. Kawasaki, Y. Kitaoka (*Osaka U.*), M.I. Larkin, Y.J. Uemura (*Columbia U.*)
896. Investigation of spin liquid behaviour in chromium and manganese spinels [completed], H. Dabkowska, J. Greedan, P.P. Kyriakou, G.M. Luke, M.T. Rovers (*McMaster U.*), I.M. Gat, M.I. Larkin, A.T. Savici, Y.J. Uemura (*Columbia U.*), K.M. Kojima (*U. Tokyo*)

897. Absolute magnetic penetration depth in the Meissner state of superconductors measured with low frequency beta-NMR [active], D. Bonn, J.H. Brewer, K.H. Chow, W. Hardy, R. Liang, R. Miller, G. Morris (*UBC*), S. Dunsiger, B. Heffner (*Los Alamos Nat. Lab*), R.F. Kiefl (*UBC-TRIUMF*), S. Kreitzman, P. Levy (*TRIUMF*), G. Luke (*McMaster U.*), J. Sonier (*SFU*), C. Stronach (*Virginia State U.*)
898. MULTI development with applications in superconductors and semiconductors [completed], P. Amadruz, D. Arseneau, S. Chan, K.H. Chow, B. Hitti, G. Morris, R. Poutissou (*TRIUMF*), J. Chakhalian, S. Dunsiger, R.F. Kiefl, R. Miller (*UBC*)
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1027. Measurement of the  $^{22}\text{Na}(p,\gamma)$  reaction rate [active], L. Buchmann, J. Caggiano, D.A. Hutcheon, J. Pearson, C. Ruiz, M. Trinczek, C. Vockenhuber (*TRIUMF*), J.M. D'Auria, J.J. Ressler (*SFU*), M. Wiescher (*U. Notre Dame*), K. Snover (*U. Washington*), J. José (*Barcelona*)
1028. Ultra-high precision decay measurements of the superallowed  $\beta$ -emitter  $^{26m}\text{Al}$  [active], A. Andreyev, G.C. Ball, P. Bricault, R.S. Chakrawarthy, G. Hackman, A.C. Morton, C. Pearson, M.B. Smith (*TRIUMF*), J.R. Leslie (*Queens U.*), R.A.E. Austin (*St. Mary's U.*), J. Ressler (*SFU*), C. Andreoiu, P.E. Garrett, G.F. Grinyer, B. Hyland, A.A. Phillips, M.A. Schumaker, C.E. Svensson, J.J. Valiente-Dobon (*U. Guelph*), D. Melconian (*U. Washington*)
1030. Charged-particle channels in the  $\beta$ -decay of  $^{11}\text{Li}$  [active], A. Andreyev, L. Buchmann, R. Chakrawarthy, A.C. Morton, C. Pearson, M.B. Smith, P. Walden (*TRIUMF*), M.J.G. Borge, O. Tengblad (*Ist. Estructura de la Materia, CSIC, Madrid*), C.A. Diget, K. Rüsager (*U. Aarhus*), M. Huyse, I. Mukha, J. Ponsaers, R. Raabe, P. Van Duppen (*Katholieke U. Leuven*), J. Pearson (*McMaster U.*), C. Ruiz (*SFU*), F. Sarazin (*Colorado School of Mines*)
1031. Charged-particle exit channels from the  $^{12}\text{C}+^{12}\text{C}$  fusion reaction at astrophysical energies [active], M. Aliotta, T. Davinson, A. Murphy (*U. Edinburgh*), C.J. Barton, S.P. Fox, B.R. Fulton, A.M. Laird, P. Mumby-Croft, K. Vaughan, D. Watson (*U. York*), L. Buchmann, G. Ruprecht, A.C. Shotter, P. Walden (*TRIUMF*), J. José (*UPC/IEEC Barcelona*)
1032. Penetration depth and time reversal symmetry breaking in filled-skutterudite  $\text{Pr}(\text{Os}_{1-x}\text{Ru}_x)_4\text{Sb}_{12}$  [active], J.E. Anderson, D.E. MacLaughlin, L. Shu (*U. California, Riverside*), R.H. Heffner (*Los Alamos Nat. Lab*), J.E. Sonier (*SFU*), O.O. Bernal (*U. California, Los Angeles*), G.D. Morris (*TRIUMF*), M.B. Maple (*U. California, San Diego*)

1033. Phase separation in the A-site ordered perovskite manganites [active], Y. Kawasaki, Y. Kishimoto, T. Ohno (*Tokushima U.*), R. Kadono, A. Koda, K. Ohishi, S.R. Saha (*KEK-MSL*), W. Higemoto (*JAERI*), T. Nakajima, Y. Ueda (*U. Tokyo*)
1034. One-dimensional cobalt oxide BaCoO<sub>3</sub> [active], H. Nozaki, J. Sugiyama (*Toyota Central R&D Labs. Inc.*), H. Ikuta, U. Mizutani, T. Takami (*Nagoya U.*), E.J. Ansaldo (*TRIUMF*), J.H. Brewer (*UBC*)
1035.  $\mu$ SR measurements of magnetism in (Ca,SR)<sub>2</sub>RuO<sub>4</sub> in ambient and applied pressure [active], I. Gat-Malureanu, P.L. Russo, Y.J. Uemura (*Columbia U.*), A.T. Savici (*Brookhaven Nat. Lab*), C.R. Wiebe (*Brock U.*), G.M. Luke, G.J. MacDougall, J. Rodriguez, Z. Tang (*McMaster U.*), Y.V. Sushko (*U. Kentucky*), S.R. Julian (*U. Toronto*), E. Baggio-Saitovitch, H. Saitovitch (*CBPF, Rio*), J. Sereni (*CAB Bariloche, Argentina*), K. Ishida, Y. Maeno, S. Nakatsuji (*Kyoto U.*), F. Nakamura (*Hiroshima U.*), J. Arai, T. Goko (*Tokyo-Science U.*)
1036.  $\beta$ -NMR study of single molecule magnets films [active], R. Miller, Z. Salman (*TRIUMF*), R. Kiefl, A. MacFarlane (*UBC-TRIUMF*), M.D. Hussain, T. Keeler, A. Morello, T. Parolin, D. Wang (*UBC*), K. Chow (*U. Alberta*), D. Gatteschi, R. Sessoli (*U. Florence*)
1038. A  $\mu$ SR study of orbitally ordered La<sub>4</sub>Ru<sub>2</sub>O<sub>10</sub> [active], R. Kiefl, R. Miller, Z. Salman (*TRIUMF*), P. Khalifah (*U. Massachusetts*), M.D. Hussain, T.A. Keeler, A. MacFarlane, T. Parolin, H. Saadaoui, D. Wang (*UBC*)
1039. A  $\mu$ SR study of ferromagnetic superconductors at low temperatures [active], R. Kiefl, R. Miller, Z. Salman (*TRIUMF*), M.D. Hussain, T.A. Keeler, A. MacFarlane, T. Parolin, H. Saadaoui, D. Wang (*UBC*)
1040. Light-induced magnetism in manganite thin films studied with  $\beta$ -NMR [active], R. Kiefl, R. Miller, Z. Salman (*TRIUMF*), M.D. Hussain, T.A. Keeler, A. MacFarlane, T. Parolin, H. Saadaoui, D. Wang (*UBC*)
1041.  $\beta$ NMR search for spontaneous magnetism near the surface of unconventional superconductors [active], J.H. Brewer, M.D. Hossain, R.F. Kiefl, W.A. MacFarlane, T.J. Parolin, H.X. Saadaoui, D. Wang (*UBC*), R.I. Miller, G.D. Morris, Z. Salman (*TRIUMF*), K.H. Chow (*U. Alberta*), R.H. Heffner (*Los Alamos Nat. Lab*), L.H. Greene (*U. Illinois*), G.M. Luke (*McMaster U.*), Y. Maeno (*Kyoto U.*), Z. Yamani (*AECL Chalk River*)
1042.  $\beta$ NMR investigation of finite size effects in metallic thin films and nanoparticle arrays [active], M.D. Hossain, T. Keeler, R.F. Kiefl, W.A. MacFarlane, T.J. Parolin, H.X. Saadaoui, D. Wang (*UBC*), R.I. Miller, G.D. Morris, Z. Salman (*TRIUMF*), J. Buriak, K.H. Chow (*U. Alberta*), S. Hak (*Groningen U.*), J. Chakhalian (*Max Planck Inst.*)

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