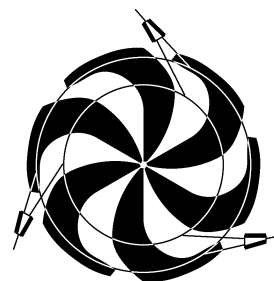


TRIUMF



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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 2002

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The following lists experiment proposals received up to the end of 2001 (missing numbers cover proposals that have been withdrawn or replaced by later versions, rejected, or combined with another proposal).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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|------|--|-----------|
| 497. | Measurement of the flavour-conserving hadronic weak interaction [completed], A.R. Berdoz, J. Birchall, J. Bland, J.R. Campbell, A.A. Green, A.A. Hamian, L. Lee, S.A. Page, W.D. Ramsay, S.D. Reitzner, A.M. Sekulovich, V. Sum, W.T.H. van Oers, R.J. Woo (<i>U. Manitoba</i>), G.H. Coombes, C.A. Davis, R. Helmer, S. Kadantsev, C.D.P. Levy, T. Ries (<i>TRIUMF</i>), P.W. Green, G. Roy, J. Soukup, T. Stocki, G.M. Stinson (<i>U. Alberta</i>), J.D. Bowman, R.E. Mischke (<i>Los Alamos Nat. Lab</i>), Y. Kuznetsov, N.A. Titov, S. Zadorozhny, A.N. Zelenski (<i>INR Moscow</i>) | Page
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| 614. | Precise measurement of the ρ , σ and $(P_\mu\xi)$ parameters in muon decay [active], W. Andersson, C. Ballard, J. Doornbos, W. Faszer, A. Gaponenko, D.R. Gill, P. Gumplinger, R. Helmer, R. Henderson, B. Jamieson, D. Maas, J.A. Macdonald, G. Marshall, A. Olin, R. Openshaw, D. Ottewell, J.-M. Poutissou, R. Poutissou, G. Price, J. Schaapman, G. Sheffer, S.-C. Wang (<i>TRIUMF</i>), P. Depommier (<i>U. Montréal</i>), P. Green, P. Kitching, M. Quraan, R. MacDonald, N. Rodning, J. Soukup, G.M. Stinson (<i>U. Alberta</i>), M. Hasinoff (<i>UBC</i>), E.L. Mathie, R. Tacik (<i>U. Regina</i>), W. Shin (<i>U. Saskatchewan</i>), E. Korkmaz, T. Porcelli (<i>UNBC</i>) C. Gagliardi, J. Hardy, J. Musser, R. Tribble, M. Vasiliev (<i>Texas A&M U.</i>), D. Koetke, P. Nord, S. Stanislaus (<i>Valparaiso U.</i>), Y. Davydov, A. Khurchinsky, V. Selivanov, V. Torokhov (<i>KIAE, Moscow</i>) | 11 |
| 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 (<i>TRIUMF</i>), J.M. Sisterson (<i>Harvard U.</i>), K. Kim (<i>San Jose State U.</i>), A.J.T. Jull (<i>U. Arizona</i>), M.W. Caffee (<i>Lawrence Livermore National Lab</i>), R.C. Reedy (<i>Los Alamos Nat. Lab</i>) | |
| 702. | Measurement of kaon-nucleon elastic scattering at 16 MeV [active], G.A. Beer, P. Knowles, G.R. Mason, A. Olin, L.P. Robertson (<i>U. Victoria</i>), P. Amaudruz, D.R. Gill, G. Smith, S. Yen (<i>TRIUMF</i>), L. Lee (<i>U. Manitoba</i>), G. Tagliente (<i>UBC</i>) | |
| 703. | Study of the decay $\pi^+ \rightarrow e^+ \nu$ phase I – lifetime measurement of the pion [completed], D.A. Bryman, T. Numaou, A. Olin (<i>TRIUMF</i>) | |
| 704. | Charge symmetry breaking in $np \rightarrow d\pi^0$ close to threshold [completed data-taking], R. Abegg*, P.W. Green, D.A. Hutcheon (<i>TRIUMF–U. Alberta</i>), L.G. Greeniaus (<i>U. Alberta–TRIUMF</i>), R.W. Finlay, A.K. Opper, S.D. Reitzner (<i>Ohio U.</i>), E. Korkmaz, T.A. Porcelli (<i>UNBC</i>), J.A. Niskanen (<i>U. Helsinki</i>), P. Walden (<i>TRIUMF–UBC</i>), S. Yen (<i>TRIUMF</i>), C.A. Davis (<i>TRIUMF–U. Manitoba</i>), D.V. Jordan (<i>Ohio U.–U. Alberta</i>), E. Auld (<i>UBC</i>) | 38 |
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| 706. | μ SR studies of spin fluctuations in CePt ₂ Sn ₂ and other Kondo spin systems [completed], A. Keren, K. Kojima, G.M. Luke, Y.J. Uemura, W.D. Wu (<i>Columbia U.</i>), K. Andres, G.M. Kalvius (<i>Tech. U. Munich</i>), H. Fujii, G. Nakamoto, T. Takabatake, H. Tanaka (<i>Hiroshima U.</i>), M. Ishikawa (<i>ISSP, U. Tokyo</i>), B. Andraka (<i>U. Florida</i>), D.L. Cox (<i>Ohio State U.</i>) | |
| 707. | μ SR measurements on two-dimensional site-diluted antiferromagnets [active], K. Kojima (<i>Columbia U.–U. Tokyo</i>), A. Keren, G.M. Luke, Y.J. Uemura, W.D. Wu (<i>Columbia U.</i>), H. Ikeda (<i>KEK–KENS</i>), R.J. Birgeneau (<i>MIT</i>), K. Nagamine (<i>U. Tokyo</i>) | |
| 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 (<i>UBC</i>), D.J. Arseneau (<i>TRIUMF–UBC</i>), M. Senba (<i>TRIUMF</i>), J.C. Brodovitch, P.W. Percival (<i>SFU</i>), H. Dilger, E. Roduner (<i>U. Zürich</i>), S.F.J. Cox (<i>Rutherford Appleton Lab</i>) | |

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 National 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*)
712. μSR 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. Dombisky, 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 β^+ decay of optically trapped $^{37,38\text{m}}\text{K}$ [active], J.M. D’Auria, A. Gorelov, D. Melconian, M. Trinczek (*SFU*), G. Ball, J.A. Behr, P. Bricault, M. Dombisky, 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.*)
716. Complete beta-delayed particle emission study of ^{31}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. Dombisky (*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. μSR 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 γ -decay of ^{65}Se , ^{69}Kr and ^{73}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 β^+ and α decays [completed data-taking], Y.A. Akovali, M. Brinkman (*Oak Ridge National Lab*), J.M. D'Auria (*TRIUMF-SFU*), J.A. Becker, E.A. Henry (*Lawrence Livermore National Lab*), M. Domsbky (*SFU*), P.F. Mantica (*UNISOR*), W. Nazarewicz (*Joint Inst. for Heavy Ion*), J. Rikovska, N.J. Stone (*Oxford U.*), M.A. Stoyer (*Lawrence Berkeley National 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. Domsbky (*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. Gumpfinger, 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}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}Ne to α -emitting states in ^{16}O [completed], R.E. Azuma, J. Chow, J.D. King, A.C. Morton (*U. Toronto*), L. Buchmann, M. Domsbky (*TRIUMF*), U. Giesen (*U. Notre Dame*), T. Davinson, A.C. Shotter (*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 National 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*), E. Christy, B.C. Doyle, T.P. Gorringer, M.A. Kovash, S. Tripathi, P. Zolnierchuk (*U. Kentucky*), D.H. Wright (*SLAC*)
745. μ^- 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- μ SR and μ W- μ SR [active], S.R. Kreitzman (*TRIUMF*), T.L. Estle, B. Hitti (*Rice U.*), R. Lichti (*Texas Tech.*), K. Chow (*UBC*), S.F.J. Cox (*Rutherford Appleton Lab*), E.A. Davis (*Leicester U.*), C. Schwab (*CRN Strasbourg*)
747. μ SR study of re-entrant spin glasses a-FeMn, AuFe, and Fe₇₀Al₃₀ [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], B. Addison-Jones, J.C. Brodovitch, K. Ghandi, I. McKenzie, P.W. Percival (*SFU*), J. Schüth (*U. Bonn*)
750. Liquid chemistry μ 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 μ 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.*), 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 (*U. Tokyo-ISSP*), 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. Oppen (*U. Alberta*), G. Feldman, N.R. Kolb (*U. Saskatchewan*)
766. The ortho-para transition rate in muonic molecular hydrogen [completed data-taking], 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 National 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 [active], J. Akimitsu, K. Oishi, H. Takagiwa, T. Yokoo (*Aoyama Gakuin U.*), W. Higemoto, R. Kadono, A. Koda (*KEK-IMSS*), M. Nohara (*U. Tokyo*), M. Hedo (*Ryukyuu U.*), Y. Onuki (*Osaka U.*)
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. μ SR studies of organic conductors: (BEDT-TTF)₂-X and (TMTTF)₂Br [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. μ 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 μ -wave μ 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 [active], 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 [active], 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 (*U. di 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. Oppen (*U. Ohio*)

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782. Non-fermi-liquid behaviour and other novel phenomena in heavy-fermion alloys [active], D.E. MacLaughlin (*U. California, Riverside*), R.H. Heffner (*Los Alamos Nat. Lab*), Y.J. Uemura (*Columbia U.*), M.B. Maple (*U. California, San Diego*), O.O. Bernal (*Cal. State U., Los Angeles*), G.M. Luke (*McMaster U.*), J.E. Sonier (*SFU*), B. Andraka, G.R. Stewart (*U. Florida*) 66
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784. μ 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.*) 69
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786. Low energy structures in the β -delayed particle decays of ^9C , ^{12}N and ^{17}Ne [completed data-taking], 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. μ 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. μ 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 National 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*) 69
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}O beam for ISAC [completed], J. D'Auria, R. Lange (*SFU*), M. Domsbky, T. Ruth, J. Vincent (*TRIUMF*), K. Carter (*Oak Ridge National Lab*), B. Zhuikov (*INR, Moscow*)
794. μ^+ SR study on the magnetic properties of 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. μ 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. μ 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 CeTSn [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. μ SR studies on the competition of RKKY exchange and Kondo effect in CeT_2X_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 $(\mu^- \text{O})$ system in 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 β -decay [completed data-taking], 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}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 National Lab*), D. Ward (*Lawrence Berkeley National 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 [active], 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}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*)
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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*)
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821. Shape coexistence and shape mixing in neutron-deficient platinum isotopes: on-line nuclear orientation studies of the decays of ^{182}Au and ^{186}Au [active], K.S. Krane (Oregon State U.), J.L. Wood (Georgia Inst. Tech.), J. D'Auria (SFU)
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928. Level structure of ^{21}Mg : nuclear and astrophysical implications [active], M. Aliotta, T. Davinson, A.St.J. Murphy, A. Robinson, P.J. Woods (*U. Edinburgh*), J.M. D'Auria (*SFU*), R. Azuma (*U. Toronto*), R. Boyd (*Ohio State U.*), L. Buchmann, A. Chen, D. Hutcheon, A. Laird, P. Walden (*TRIUMF*), B. Fulton (*U. York*)
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