

XXXVIII Symposium on Nuclear Physics (Cocoyoc 2015)

Journal of Physics: Conference Series Volume 639

Cocoyoc, Mexico
6 – 9 January 2015

Editors:

Elizabeth Padilla-Rodal

ISBN: 978-1-5108-1316-8
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2015) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 639

XXXVIII Symposium on Nuclear Physics (Cocoyoc 2015)
6–9 January 2015, Cocoyoc, Mexico

Accepted papers received: 25 August 2015
Published online: 14 September 2015

Preface

011001

[XXXVIII Symposium on Nuclear Physics \(Cocoyoc 2015\)](#) OPEN ACCESS E Padilla-Rodal

011002

[Committees and sponsors](#) OPEN ACCESS

011003

[Peer review statement](#) OPEN ACCESS

Papers

012001

[Evaporation protons from the low-energy fusion of \${}^6\text{Li} + {}^{58}\text{Ni}\$](#) OPEN ACCESS E F Aguilera, J J Kolata, E Martinez-Quiroz, P Amador-Valenzuela, D Lizcano, A Gómez-Camacho and A García-Flores""r i 03

012002

[Elastic scattering and transfer reactions for the system \${}^7\text{Be} + {}^{58}\text{Ni}\$ at Coulomb barrier energies](#) OPEN ACCESS M Mazzocco, D Torresi, L Acosta, A Boiano, C Boiano, T Glodariu, A Guglielmetti, N Keeley, M La Commara, J A Lay, I Martel, C Mazzocchi, P Molini, C Parascandolo, V V Parkar, D Pierroutsakou, M Romoli, K Rusek, A M Sanchez-Benitez, M Sandoli, C Signorini, R Silvestri, F Soramel, E Strano and L Stroe""r i 08

012003

[Over half a century of studying carbon-12](#) OPEN ACCESS Tzany Kokalova Wheldon""r i 036

012004

[Nova nucleosynthesis and production of the radioisotope \$^{18}\text{F}\$](#) OPEN ACCESS D W Bardayan""r i 044

012005

[Mass-23 nuclei in astrophysics](#) OPEN ACCESS P R Fraser, K Amos, L Canton, S Karataglidis, J P Svenne and D van der Kniff""r i 052

012006

[Far From ‘Easy’ Spectroscopy with the \$8\pi\$ and GRIFFIN Spectrometers at TRIUMF-ISAC](#) OPEN ACCESS P E Garrett, A J Radich, J M Allmond, C Andreoiu, G C Ball, P C Bender, L Bianco, V Bildstein, H Bidaman, R Braid, C Burbadge, S Chagnon-Lessard, D S Cross, G Deng, G A Demand, A Diaz Varela, M R Dunlop, R Dunlop, P Finlay, A B Garnsworthy, G F Grinyer, G Hackman, B Hadinia, S Ilyushkin, B Jigmeddorj, D Kisliuk, K Kuhn, A T Laffoley, K G Leach, A D MacLean, J Michetti-Wilson, D Miller, W Moore, B Olaizola, J N Orce, C J Pearson, J L Pore, M M Rajabali, E T Rand, F Sarazin, J K Smith, K Starosta, C S Sumithrarachchi, C E Svensson, S Triambak, J Turko, Z M Wang, J L Wood, J Wong, S J Williams, S W Yates and E F Zganjar""r i 05:

012007

[Nuclear Structure Studies in the \$^{132}\text{Sn}\$ Region: “Safe Coulex” with Carbon Targets](#) OPEN ACCESS J M Allmond, A E Stuchbery, A Galindo-Uribarri, E Padilla-Rodal, D C Radford, J C Batchelder, C R Bingham, M E Howard, J F Liang, B Manning, S D Pain, N J Stone, R L Varner and C-H Yu""r i 075

012008

[Emergence of Simple Patterns in Complex Atomic Nuclei from First Principles](#) OPEN ACCESS T Dytrych, K D Launey, J P Draayer, P Maris, J P Vary, D Langr and T Oberhuber""r i 07:

012009

[Improvement to the Projected BCS Approximation](#) OPEN ACCESS S Pittel, J Dukelsky and C Esebbag""r i 08;

012010

[Super-radiance in Nuclear Physics](#) OPEN ACCESS N Auerbach""r i 097

012011

[First scientific contributions from the High Altitude Water Cherenkov Observatory](#)
OPEN ACCESS H León Vargas (for the HAWC Collaboration) 4

012012

[Simultaneous analysis of neutrinoless double beta decay and LHC pp-cross sections: limits on the left-right mixing angle](#) OPEN ACCESS O Civitarese, J Suhonen and K Zuber 9

012013

[The unquenched quark model](#) OPEN ACCESS H García-Tecocoatzi and R Bijker 4

012014

[QCD at low energy: The use of many-body methods](#) OPEN ACCESS D A Amor Quiroz, P O Hess, O Civitarese and T Yépez-Martínez :