Contribution ID: **58** Type: **Poster**

Critical interaction and strong-absorption distances for the ^{7}Li + ^{58}Ni system

Tuesday, 20 June 2017 19:30 (2 hours)

\thispagestyle{empty}

\begin{center}
%%%
%%% Title goes here.
%%%
\TITLE{Critial interaction and strong-absorption distances for the ^{7}Li + ^{58}Ni system }\\[3mm]
%%%
%%% Authors and affiliations are next. The presenter should be
%%% underlined as shown below.
%%%
\AUTHORS{P. Amador-Valenzuela[1], E.F. Aguilera[1], E. Martinez-Quiroz[1], D. Lizcano[1], J.C. Morales-Rivera[1,2], T.L. Belyaeva[2] }

%%%
{\small \it
\AFFILIATION{1}{Departamento de Aceleradores, Instituto Nacional de Investigaciones Nucleares, Apartado Postal 18-1027, C.P. 11801, M\'exico. }
\AFFILIATION{2}{Facultad de Ciencias, Universidad Aut\'onoma del Estado de M\'exico, C.P. 51000, Toluca, M\'exico}

}
%%%
\vspace{12pt} % Do not modify

% Enter contact e-mail address here.

\centerline{Contact email: {\it paulina.amador@inin.gob.mx}}

\vspace{18pt} % Do not modify

\end{center}
%%%
%%% Abstract proper starts here.
%%%
It is well known that in order to understand the composition of stars and how they produce energy, it is essential to know about
nuclei as well as the reactions that they undergo. Lithium-7 as well as lithium-6 had a very low production after the Big Bang which might wrongly give the impression that the study of these nuclei are not as important as other nuclei. With this in mind, new experimental data on nuclear reactions are always welcome. Just recently, the Heavy-Ion Group made measurements of ^{7}Li elastically scattered from ^{58}Ni at energies around the Coulomb barrier. The measurements were made at the Tandem Van de Graaff particle accelerator in the National Institute for Nuclear Research (ININ) in Mexico. In this work critical interaction and strong-absorption distances were determined from these elastic data. We also present an analysis by using different potentials in order to describe the data just mentioned.

%\bigskip
%{\small

%\noindent [1] E. Stark, Phys. Journal of the North 83 045801 (2011);

%\noindent
%[2] O. Martell et al. submitted to Solar Physics Letters (2013).}
%%%
%%% End of abstract.
%%%
\end{document}

Primary author: Dr AMADOR-VALENZUELA, Paulina (Instituto Nacional de Investigaciones Nucleares)

Co-authors: Dr LIZCANO, David (Instituto Nacional de Investigaciones Nucleares); Dr AGUILERA, Eli (Instituto Nacional de Investigaciones Nucleares); Dr MARTINEZ-QUIROZ, Enrique (Instituto Nacional de Investigaciones Nucleares); Mr MORALEZ-RIVERA, Juan Carlos (Universidad Autónoma del Estado de México); Dr BELYAEVA, Tatyana (Universidad Autónoma del Estado de México)

Presenter: Dr BELYAEVA, Tatyana (Universidad Autónoma del Estado de México)

Session Classification: Poster session