LIST OF PUBLICATIONS IN PEER-REVIEWED JOURNALS

[1]. **Neutron capture cross section of ^{186}W isotope in the energy range from 0.6-3.2 MeV with covariance analysis**

Mayur Mehta, N. L. Singh, A. Gandhi, P.V. Subhash, Rebecca Pachuau, Ratankumar Singh, R. Makwana, S.V. Suryanarayana, B. K .Nayak, H. Naik, K. Katovsky

Radiation Physics and Chemistry, RPC-D-23-01362 (In Review) ***Impact Factor = 2.9***

[2]. **Activation cross section for ^{85}Rb(n,p)^{85m}Kr and ^{85}Rb(n,2n)^{84m}Rb reaction with uncertainty propagation and covariance analysis**

Mayur Mehta, N. L. Singh, Ratankumar Singh, R. Makwana, P. V. Subhash, Rakesh Chauhan, B. K. Soni, S.V. Suryanarayana, H. Naik, R. Palit, K. Katovsky

J. of Radioanalytical and Nuclear Chemistry, (2024) ***Impact Factor = 1.754***

DOI: 10.1007/s10967-024-09682-5

[3]. **Measurement of ^{85}Rb(n,2n)^{84m}Rb reaction cross section at 15.72±0.59 and 16.73±0.66 MeV**

N. L. Singh, P. Bangotra, **Mayur Mehta**, Ratankumar Singh, B. Soni, R. Makwana, Rakesh Chauhan, V. Vashi, R. Palit, P.V. Subhash, H. Naik, S.V. Suryanarayana, S.C. Sharma, Karel Katovsky, Jan Varmuza

IEEE Xplore Conference Proceedings (EPE-2023), pp. 237-4 (2023)

Impact Factor = 3.557

[4]. **Cross section of (n,2n) reaction for Niobium and Strontium isotopes between 13.97 to 20.02 MeV neutron energies**

Mayur Mehta, N. L. Singh, Ratankumar Singh, Rakesh Chauhan, Rajnikant Makwana, S. V. Suryanarayana, H. Naik, P. V. Subhash, S. Mukherjee, Jan Varmuza, Karel Katovsky

Applied Radiation and Isotopes 182, 110142, (2022) ***Impact Factor = 1.787***

[5]. **Measurement of ^{90}Zr(n,2n) ^{89}Zr and ^{90}Zr(n,p)^{90m}Y reaction cross sections in the neutron energy range of 10.95 to 20.02 MeV**

Mayur Mehta, N. L. Singh, R. K. Singh, Siddharth Parashari, P. V. Subhash, H. Naik, R. D. Chauhan, R. Makwana, S. V. Suryanarayana, S. Mukherjee, A. Gandhi, J. Varmuza And K. Katovsky

J. of Radioanalytical and Nuclear Chemistry, 328, 71, (2021) ***Impact Factor = 1.754***

[6]. **Measurement of (n,γ) reaction cross section of ^{186}W-isotope at neutron energy of 20.02±0.58 MeV**

Mayur Mehta, N. L. Singh, R Makwana, P V Subhash, S V Suryanarayana, S Parashari, Rakesh Chauhan, R K Singh, H. Naik, S Mukherjee, B. Soni, S. Khirwadkar, J. Varmuza & K. Katovsky

Ind. J. of Pure & Applied Physics, 58, 5 (2020) ***Impact Factor = 0.7***

[7]. **Measurement of neutron induced ^{86}Sr(n,2n)^{85}Sr reaction cross sections at different neutron energies**

Nidhi Shetty, Rajnikant Makwana, **Mayur Mehta**, N.L. Singh, S. Mukherjee, S.V. Suryanarayana, Siddharth Parashari, Ratan Kumar, Sai Akhil Ayyala, Chandani Menpara

Applied Radiation and Isotopes 154, 108866 (2019) ***Impact Factor = 1.787***

[8]. **Neutron induced reaction cross section for the plasma facing fusion reactor material - Tungsten isotopes**

Mayur Mehta, N. L. Singh, R. Makwana, S. Mukherjee, V. Vansola, Y. Santhi Sheela, S. Khirwadkar, M. Abhangi, S. Vala, S.V. Suryanarayana, H. Naik, R. Acharya, J. Varmuza, K. Katovsky

IEEE Xplore Conference Proceedings (EPE 2018), p 502-507 (2018)

Impact Factor = 3.557

LIST OF PUBLICATIONS IN PEER-REVIEWED JOURNALS (OTHERS)

[1]. **Activation cross section for the (n,2n) and (n,p) reactions on ^{103}Rh, ^{48}Ti and ^{52}Cr from reaction threshold up to 25 MeV energy region**

R. K. Singh, N. L. Singh, **Mayur Mehta**, Rakesh Chauhan, S.V. Suryanarayana, Rajnikant Makwana, B. K. Nayak, H. Naik, Jan Varmuza, K. Katovsky

Applied Radiation and Isotopes 200, 110949 (2023) ***Impact Factor = 1.787***

[2]. **Measurement of neutron capture cross section on ^{71}Ga at 2.15 and 3.19 MeV and uncertainty propagation and covariance analysis***

Rebecca Pachuau, A. Gandhi, Namrata Singh, A. Kumar, **Mayur Mehta**, S. V. Suryanarayana, L. S. Danu, B. K. Nayak and B. Lalremruata

Chines Physics C 47(7) (2023) 074001 ***Impact Factor = 2.94***

[3]. **Cross sections for production of ^{115m}In by quasi-mono energetic neutrons within 7-20 MeV**

Akash Hingu, Bhargav Soni, Siddharth Parashari, Rajnikant Makwana, P.M. Prajapati, Vibhuti Vashi, **Mayur Mehta**, R. Palit, S.V. Suryanarayana, B.K. Nayak, K. Katovsky

Radiation Physics and Chemistry 199, 110270 (2022) ***Impact Factor = 2.776***

[4]. **Cross section measurement of the ^{114}Cd(p,γ)^{115m}In reaction for nuclear reactor and astrophysical applications**

Vibhuti Vashi, Rajnikant Makwana, B. Quintana, **M. H. Mehta,** B. K. Soni, S. Mukherjee, R. K. Singh, R. Chauhan, P. M. Prajapati, M. Abhangi, S. Vala, N. L. Singh, G. B. Patel, S. V. Suryanarayana, B. K . Nayak, S. C. Sharma, T. N. Nag and Y. Kavun

Physical Review C 105, 044613 (2022) ***Impact Factor = 3.04***

[5]. **Measurement of cross sections for flux monitor reactions using quasi-mono energetic neutrons**

Vibhuti Vashi, Rajnikant Makwana, S. Mukherjee, B. K. Soni, **M. H. Mehta**, S. Parashari, R. K. Singh, R. Chauhan, S. V. Suryanarayana, B. K. Nayak, S. C. Sharma, H. Naik, N. L. Singh & T. N. Nag

The European Physical Journal Plus 136, 746 (2021) ***Impact Factor = 3.4***

[6]. **Systematic study of (p, n) and (p, 2n) reactions on ^{110}Cd**

Vibhuti Vashi, B. Quintana, **M. H. Mehta**, B. K. Soni, S. Mukherjee, R. K. Singh, R. Chauhan, M. Abhangi, S. Vala, N. L. Singh, G. B. Patel, S. V. Suryanarayana, B. K. Nayak, S. C. Sharma, T. N. Nag, Y. Kavun

Radiation Physics and Chemistry 208, 110933 (2023) ***Impact Factor = 2.776***

[7]. **Study of (n, 2n) reaction cross sections for ^{107}Ag within the energy range of 9–22 MeV**

Rakesh Chauhan, R. K. Singh, N. L. Singh, **Mayur Mehta**, Rajnikant Makwana, S. V. Suryanarayana, S. Mukherjee, B. K. Nayak, H. Naik, J. Varmuza & K. Katovsky

The European Physical Journal Plus 136, 532 (2021) ***Impact Factor = 3.4***

[8]. **Systematic study of the (n, 2n) reaction cross section for ^{121}Sb and ^{123}Sb isotopes**

Ratankumar Singh, N. L. Singh, Rakesh Chauhan, **Mayur Mehta**, Saraswatula Suryanarayana, Rajnikant Makwana, B. K. Nayak, H. Naik, Tarak Nath Nag and Karel Katovsky

Chinese Physics C, 46, 054002 (2022) ***Impact Factor = 2.944***

[9]. **Neutron capture reaction cross section measurement for Iodine nucleus with detailed uncertainty quantification**

Aman Gandhi, Aman Sharma, Rebecca Pachuau, Namrata Singh, Prashant N. Patil, **Mayur Mehta**, L. S. Danu, S. V. Suryanarayana, B. K. Nayak, B. Lalremruata and A. Kumar

The European Physical Journal Plus, 136, 819 (2021) ***Impact Factor = 3.4***

[10]. **Neutron induced reaction cross section of ^{51}V with covariance analysis**

R. K. Singh, N. L. Singh, R. D. Chauhan, **Mayur Mehta**, S. V. Suryanarayana, Rajnikant Makwana, S. Mukherjee, B. K. Nayak, H. Naik, Tarak Nath Nag, J. Varmuza And K. Katovsky

The European Physical Journal A, 57, 337 (2021) ***Impact Factor = 2.7***

[11]. **Neutron radiative capture cross section for sodium with covariance analysis**

Aman Gandhi, Aman Sharma, Rebecca Pachuau, B. Lalremruata, **Mayur Mehta**, Prashant N. Patil, S.V. Suryanarayana, L.S. Danu, B.K. Nayak and A. Kumar

The European Physical Journal A, 57, 1 (2021) ***Impact Factor = 2.7***

[12]. **Cross Sections for the (n,p) Reaction of Selenium Isotopes within 10.5 to 19.81 MeV Neutron Energies**

R. K. Singh, N. L. Singh, R. D. Chauhan, **Mayur Mehta**, S. V. Suryanarayana, Rajnikant Makwana, S. Mukherjee, B. K. Nayak, H. Naik, J. Varmuza And K. Katovsky

The European Physical Journal Plus, 136, 338 (2021) ***Impact Factor = 3.4***

[13]. **Measurements of 181Ta(n,2n)180Ta reaction cross section at the neutron energy of 14.78 MeV**

Bhargav K. Soni, Siddharth Parashari, Rajnikant Makwana, S. Mukherjee, **M. Mehta**, R. Chauhan, S.V. Suryanarayana, I. Pasha, B.K. Nayak, and K. Katovsky

Ind. J. of Pure & Applied Physics Vol. 58, 4 (2020) ***Impact Factor = 0.7***

[14]. **Neutron capture cross sections for ^{159}Tb isotope in the energy range of 5 to 17 MeV**

B. K. Soni, Rajnikant Makwana, S. Mukherjee, Siddharth Parashari, S. V. Suryanarayana, B. K. Nayak, H. Naik, **M. Mehta**

Applied Radiation and Isotopes- 141 (2018) 10-14 ***Impact Factor = 1.787***

[15]. **Measurement of Th^{232} (n,γ) reaction cross sections in the neutron energy range of 11-19 MeV**

S. Parashari, S. Mukherjee, A. P. Singh, V. Vansola, H. Naik, B. K. Nayak, R. Makwana, S. V. Suryanarayana, N. L. Singh, **M. Mehta**, Y. S. Sheela, M. Karkera, R. D. Chauhan, S. C. Sharma,

Physical Review C 98, 014625 (2018) ***Impact Factor = 3.04***

[16]. **Spectrum average cross section measurement of ^{183}W(n,p)^{183}Ta and ^{184}W(n,p)^{184}Ta reaction cross section in ^{252}Cf(sf) neutron field**

Rajnikant Makwana, S. Mukherjee, L. Snoj, S. S. Barala, **M. Mehta**, P. Mishra, S. Tiwari, M. Abhangi, S. Khirwadkar, H. Naik

Applied Radiation and Isotopes 127, pp. 150-155 (2017) ***Impact Factor = 1.787***

[17]. **Measurements of the cross sections of the ^{186}W(n,γ)^{187}W, ^{182}W(n,p)^{182}Ta, ^{154}Gd(n,2n)^{153}Gd and ^{160}Gd(n,2n)^{159}Gd reactions at neutron energies of 5 to 17 MeV**

Rajnikant Makwana, S. Mukherjee, P. Mishra, H. Naik, N. L. Singh, **M. Mehta**, K. Katovsky, S. V. Suryanarayana, V. Vansola, Y. Santhi Sheela, M. Karkera, R. Acharya, and S. Khirwadkar

Physical Review C 96, 024608 (2017) ***Impact Factor = 3.4***

LIST OF CONFERENCE PROCEEDINGS

[1]. **Measurement of ^{85}Rb(n,2n)^{84m}Rb reaction cross section at different neutron energies**

N. L. Singh, **Mayur Mehta**, Ratankumar Singh, P. V. Subhash, Rajnikant Makwana, Rakesh Chauhan, Bhargav Soni, H. Naik, S. V. Suryanarayana, J. Varmuza, K. Katovsky

Proceedings of the DAE Symposium on Nuclear Physics 66 (2022)

[2]. **Measurement of $^{88}Sr(n,2n)^{87m}Sr$ reaction cross section using activation method**

Mayur Mehta, N.L. Singh, P.V. Subhash, Ratankumar Singh, Rakesh Chauhan, R. Makwana, S.V. Suryanarayana, H. Naik, S. Sharma

Proceedings of the DAE Symposium on Nuclear Physics 65 (2021)

[3]. **Experimental and theoretical study of the $^{65}Cu(n,p)^{65}Ni$ reaction cross section from threshold to 25 MeV energies**

R. K Singh, N. L. Singh, Rakesh Chauhan, **Mayur Mehta**, S. V. Suryanarayana, Rajnikant Makwana, S. Mukherjee, B. K. Nayak, H. Naik, J. Varmuza, K. Katovsky

Proceedings of the DAE Symposium on Nuclear Physics 65, B-75 (2021)

[4]. **Experimental and theoretical cross sections of $^{115}In(n,n')$ reaction at 19 and 16 MeV using quasi-mono energetic neutrons**

Akash Hingu, Bhargav Soni, S. Mukherjee, Rajnikant Makwana, Siddharth Parashari, Vibhuti Vashi, **Mayur Mehta**, R. Palit, S. V. Suryanarayana

Proceedings of the DAE Symposium on Nuclear Physics 65, B -77 (2021)

[5]. **Excitation function of the $^{71}Ga(n,\gamma)^{72}Ga$ reaction cross section in the incident neutron energy range 0.6-3.1 MeV**

Rebecca Pachuau, A. Gandhi, Namrata Singh, **Mayur Mehta**, L. S. Danu, S. V. Suryanarayana, B. K. Nayak, A. Kumar, B. Lalremruata

Proceedings of the DAE Symposium on Nuclear Physics 65, B-99 (2021)

[6]. **Measurement of isomeric cross section at energy of astrophysical interest**

Vibhuti Vashi, R. Makwana, B. Quintana, **M. Mehta**, S. Mukherjee, B. Soni, M. Abhangi, S. Vala, N. Singh, R. Singh, G. Patel, A. Hingu, S. Suryanarayana, B. Nayak, S. Sharma, T. N. Nag

Proceedings of the DAE Symposium on Nuclear Physics 65, C-19 (2021)

[7]. **Measurement of $^{93}Nb(n,2n)^{92}Nb$ cross section at different neutron energies**

Mayur Mehta, N. L. Singh, P. V. Subhash, Rajnikant Makwana, Rakesh Chauhan, Ratankumar Singh, H. Naik, S. Mukherjee, S. V. Suryanarayana, Vibha Vansola, Y. Santhi Sheela, Mitul Abhangi, Sudhirsingh Vala, Naveen Agrawal, Nidhi Shetty, R. Acharya

Proceedings of the DAE Symposium on Nuclear Physics 63 (2018)

[8]. **Measurement of neutron induced reaction cross sections for ^{86}Sr at different neutron energies**

Nidhi Shetty, Rajnikant Makwana, **Mayur Mehta**, N. L. Singh, S. Mukherjee, S. V. Suryanarayana, Siddharth Parashari, Ratan Kumar, Sai Akhil Ayyala, Chandani Menpara

Proceedings of the DAE Symposium on Nuclear Physics 63, B-108 (2018)

[9]. **Measurements of cross section of ^{160}Gd(n,2n)^{159}Gd reaction at energies of 10.72, 14.72 and 18.72 MeV**

Rakesh Chauhan, Ratan Kumar Singh, Rajnikant Makwana, N. L. Singh, S. Mukherjee, H. Naik, **Mayur Mehta**, B. K. Soni, S. V. Suryanarayana

Proceedings of the DAE Symposium on Nuclear Physics 63, B-138 (2018)

[10]. **Measurement of ^{78}Se(n,p)^{78}As reaction cross sections at different neutron energies**

Ratankumar Singh, Rakesh Chauhan, N. L. Singh, S. V. Suryanarayana, Siddharth Parashari, Rajnikant Makwana, S. K. Mukherjee, **Mayur Mehta**, Sai Akhil Ayyala, S. C. Sharma

Proceedings of the DAE Symposium on Nuclear Physics 63, B-159 (2018)