

Curriculum Vitae

1. Name: Dr. Niyti
2. Designation: Assistant Professor of Physics, Gandhi Memorial National College, Ambala Cantt., Haryana, India
3. Area of expertise: Theoretical Nuclear Physics
➤ Synthesis and Decay of Superheavy Elements
➤ Exploring the centre of Island of Stability
4. Educational Qualifications:

S. No	Exam. Passed	Board/ Univ.	Year of Passing	% age of Marks.	Divison
1.	Ph.D. (Theoretical Nuclear Physics)	Department of Physics, Panjab University Chandigarh	2011		
2.	National Eligibility Test conducted by University Grants Commission, India (UGC-NET) qualified in 2005.				
3.	(Post Graduation) M. Sc. Physics	Department of Physics, Panjab University Chandigarh	2004	75.2%	First
4.	(Graduation) B.Sc.	Punjabi University, Patiala	2002	73.0%	First (Appeared in merit list of Punjabi University)
5.	XII	CBSE	1999	82.2%	First
6.	X	CBSE	1997	85%	First

5. Title of Ph.D. thesis: Decay of Superheavy Nuclei Formed in Collisions of Deformed and Oriented Nuclei

Thesis Supervisor:

Late Prof. Raj K. Gupta,
Physics Department,
Panjab University
Chandigarh - 160014 India.

6. National /International Awards/Recognition:

Sr. No.	Award/Recognition	National/ International	Year of Award/ Recognition	Selecting Organization
1.	Selected for IUPAP (International Union for Pure and applied Physics) travel grant for women in Physics	International	2019	APS (American Physical Society)
2.	Selected for participation and attended Meeting of Nobel Laureates and Students held in Lindau, Germany	International	2016	German Science Foundation (DFG) Germany and Department of Science and Technology, Govt. of India
3.	INSPIRE Faculty Award under which salary equivalent to that of Assistant Professor and a research grant of INR 35 Lakh is given over a period of 5 years.	National	2012	Department of Science and Technology, Govt. of India and Indian National Science Academy

7. Publications in International Journals:

S. No.	Journal name	Title of the paper	Authors	Year	Volume	Page nos.	Impact Factor	Citations
1.	Physical Review C	Examining the entrance channel effects on the synthesis of the doubly magic deformed nucleus ^{270}Hs : A theoretical study using the dynamical cluster-decay model including Skyrme forces	Aman Deep, Niyti , Rajpal Singh, Rajesh Kharab and Sahila Chopra	2020	102	034607	3.820	0
2.	International Journal of Modern Physics E	Study of Decay properties of $^{260}\text{Sg}^*$ nucleus formed via Different incoming	Aman Deep, Niyti , Rajpal Singh, Rajesh Kharab and Sahila Chopra	2019	Vol. 28, No.8	1950079	1.343	2

		Channels by using GSKI Skyrme Force						
3.	Acta Physica Polonica B	Dynamical Cluster Decay Model Based on Skyrme force KDE0(v1) and the dynamics of $^{208,206,204}\text{Pb} \rightarrow ^{256,254,252}\text{N} \text{ o}^*$ Reaction	Niyti , Rajpal Singh, Aman Deep, Rajesh Kharab, Sahila Chopra, and Raj K. Gupta	2018	3	49	0.998	0
4.	Physical Review C	Skyrme forces and decay of the $^{266}_{104}\text{Rf}^*$ nucleus synthesized via different incoming channels	Niyti , Aman Deep, Rajesh Kharab, Sahila Chopra, and Raj K. Gupta	2017	95	034602	3.820	4
5.	Applied Science Letter	Application of Skyrme Forces to the Decay of $^{266}\text{Rf}^*$ formed in Fusion reaction $^{18}\text{O} + ^{248}\text{Cm}$	Niyti , Aman Deep, Rajesh Kharab, Sahila Chopra and Raj K. Gupta	2016	2(4)	122-125		0
6.	Nuclear Physics A	Synthesis of Nobelium nucleus in $^{204,206,207,208}\text{Pb} + ^{48}\text{Ca}$ reactions and isotopic dependence of its cross-section	Niyti , Raj K. Gupta, and Peter Otto Hess	2015	938	22-44	1.916	6
7.	Physical Review C	Alpha-decay chains of recoiled superheavynuclei: A theoretical study	Niyti , Gudveen Sawhney, Manoj K. Sharma, and Raj K. Gupta	2015	91	054606	3.820	21
8.	Physical Review C	Synthesis of doubly deformed-magic nucleus $^{270}_{108}\text{Hs}_{162}$ in decay of $^{274}\text{Hs}^*$ formed via hot fusion reactions: Entrance channel effects and role of magicity of ^{48}Ca and ^{270}Hs	Niyti and Raj K. Gupta	2014	89	014603	3.820	25
9.	International Review of PHYSICS	Probing Nuclear Matter at the Extremes through application of Dynamical Cluster-decay Model to Superheavy Nuclei	Niyti , Manoj K. Sharma, Kirandeep Sandhu, Sahila Chopra, Raj K. Gupta	2014	8	86	6.39	0
10.	EPJ web of conferences, <i>Proceedings</i>	Synthesis of $^{250-253}\text{No}$ in $^{206}\text{Pb} + ^{48}\text{Ca}$ Reaction	Niyti and Raj K. Gupta	2014	66	03066	1.56	0

	<i>of 25th International Nuclear Physics Conference held in Firenze, Italy, June 2-7 2013,</i>							
11.	Journal of Physics G: Nuclear and Particle Phys.	Establishing the island of stability for superheavy nuclei via the dynamical cluster-decay model applied to a hot fusion reaction: $^{48}\text{Ca}+^{238}\text{U}\rightarrow^{286}112^*$	Niyti , R. K. Gupta and Walter Greiner	2010	37	115103	2.899	33
12.	Journal of Physics G: Nuclear and Particle Phys.	Island of stability for superheavy elements and the dynamical cluster-decay model for fusion evaporation residue cross sections: $^{48}\text{Ca}+^{238}\text{U}\rightarrow^{286}112^*$ as an example	Raj K Gupta, Niyti , Monika Manhas and Walter Greiner	2009	36	115105	2.899	3
13.	International Journal of Modern Physics E	Role of static deformation and compact orientation of target nucleus in measured fusion, fusion-fission and capture cross-sections of $^{244}\text{Pu}+^{48}\text{Ca}$ reaction 18 (2009) 601-619	R. K. Gupta, Niyti , M. Manhas, Sigurd Hofmann, and Walter Greiner	2009	18	601-619	1.343	26
14.	International Review of PHYSICS	Collective Clusterization in Hot and Rotating Nuclei: Preformed-cluster based Dynamical Cluster-decay Model	Raj K. Gupta, Sham K. Arun, Raj Kumar, and Niyti	2008	2	369	6.39	52
15.	International Journal of Modern Physics E	Clusters in light, heavy, super-heavy and super-superheavy nuclei	R. K. Gupta, S. K. Arun, D. Singh, R. Kumar, Niyti , S.K. Patra, P. Arumugam and B.K. Sharma	2008	17	2244-2249	1.343	7

8. Papers Presented/Participated in National/International Conferences/Workshops:

Sr. No.	Name of Conference/Workshop	Title of Paper presented	Place	Date
1.	"LXX International conference "NUCLEUS – 2020. Nuclear physics and elementary particle physics. Nuclear physics technologies	STUDY OF DECAY PROPERTIES OF $^{260}\text{Sg}^*$ NUCLEUS FORMED VIA DIFFERENT INCOMING CHANNELS BY USING GSKI SKYRME FORCE	Saint Petersburg State University, Russia (attended online)	11-17 October 2020
2.	64 th DAE Symposium on Nuclear Physics	Study of decay of $^{260}\text{Sg}^*$ formed in $^{51}\text{V}+^{209}\text{Bi}$ and $^{52}\text{Cr}+^{208}\text{Pb}$ fusion reactions using GSKI Skyrme Force	Lucknow University, Lucknow	23-27 Dec, 2019
3.	DAE Symposium on Nuclear Physics	Study of Decay properties of $^{269-271}\text{Hs}^*$ nucleus formed via Different incoming Channels by using GSKI Skyrme Force	Thapar University, Patiala	20-24 Dec 2017
4.	DAE Symposium on Nuclear Physics	Skyrme Forces and the Decay of $^{266}\text{104Rf}^*$ nucleus formed via different incoming channels	Saha Institute of Nuclear Physics, Kolkata.	5-9 Dec 2016.
5.	National Conference on Physics-Industry Interface	Application of Skyrme Forces to the Decay of $^{266}\text{Rf}^*$ formed in Fusion reaction $^{18}\text{O}+^{248}\text{Cm}$	Kurukshetra University, Kurukshetra.	02-04 Sept 2015
6.	National Conference on Emerging Trends in Nuclear and many-body Physics	Alpha Decay of Superheavy Elements: A theoretical study using Dynamical Cluster Decay Model	Jammu University, Jammu	10-11 Nov. 2014
7.	DAE Symposium on Nuclear Physics	New approach to α -decay chains in Superheavy Elements: Inclusion of temperature dependance in decay half-lives	BHU, Varanasi.	8-12 Dec 2014.
8.	National Workshop on Ion beam induced Growth and Engineering of materials	Participation	Kurukshetra University, Kurukshetra.	11-12 March 2014.
9.	VI International Conference FUSION 08	Study of α -decay of ^{270}Hs using the dynamical cluster decay model	IUAC, New Delhi	24-28 Feb, 2014
10.	INDIA-UK Seminar in Nuclear Physics at Isolde	Participation	Panjab Univ., Chandigarh.	22-24 Jan, 2014.
11.	International DAE Symposium on	Synthesis of $Z=108$ $^{269-271}\text{Hs}$ nuclei: Entrance channel effects and role of	BARC, Mumbai.	2-6 Dec., 2013.

	Nuclear Physics	double-magicity of ^{48}Ca beam		
12.	DAE-BRNS National Work-shop on Radiochemistry and Applications of Radio-isotopes	Participation	Kurukshetra University, Kurukshetra	23-27 Oct 2013.
13.	Chandigarh Science Congress	Presented a paper	Panjab Univ., Chandigarh	1-3 March 2013.
14.	DAE Symposium on Nuclear Physics	A comparative study of hot and cold fusion reactions using $206\text{Pb}+48\text{Ca}$ as an example	Delhi Univ., New Delhi.	3-7 Dec. 2012.
15.	Indian Nuclear Society National Seminar on "Nuclear Technology for Sustainable Development",	Island of stability established via the Dynamical cluster decay model applied to hot fusion reaction $^{48}\text{Ca}+^{238}\text{U}\rightarrow^{286}112$	Thapar University, Patiala	October 10-11, 2009
16.	2 nd Chandigarh Science Congress	Role of moment of inertia and of limiting angular momentum in heavy ion collisions	Panjab University, Chandigarh.	March 14-15, 2008
17.	11 th Punjab Science congress	Reaction dynamics of light, heavy and super heavy nuclei using dynamical cluster- decay model	Thapar University, Patiala	Feb 7-9, 2008
18.	Chandigarh Science Congress	A non-statistical, dynamical description of the hot and rotating compound nucleus	Panjab University, Chandigarh.	March 10-11, 2007

9. Teaching/ Research Experience

SL. No.	Name of Institute	Post Held	Period		Duration
			From	To	
1.	Govt. College For Girls, Chandigarh.	Lecturer	26-07-2004	26-02-2005	7 months
2.	Institute of Engg. And Technology Bhaddal, Ropar (Pb.)	Contract Lecturer	01-03-2005	30-06-2005	4 months
3.	Institute of Engg. And Technology Bhaddal (Pb.)	Lecturer	28-07-2005	28-12-2006	1 year 5 months
4.	Lovely Professional University Phagwara (Pb.)	Assistant Professor	26-07-2010	27-06-2011	11 months

5.	M.M. University, Sadopur, Ambala.	Assistant Professor	01-07- 2011	09-10- 2012	1 year 3 months
6.	Department of Physics, Kurukshetra University, Kurukshetra	DST - INSPIRE Faculty	05-11- 2012	04-11- 2017	5 years
7.	Gandhi Memorial National College, Ambala Cantt	Assistant Professor	30-11- 2017	Till Date	2 years