



Final Program

6 – 10 June 2022

Monday, 6. June 2022

Registration and Opening: 9:00 – 10:00 (Local time)

IJS representatives

URSJV representative

IAEA representative

IJS/SVPIS – safety issues

Break: Coffee/Tea: 10:00 – 10:30 (Local time)

1. Fundamentals of k_0 -NAA

Chair: B. Smodiš

Time	Code	Authors	Title
10:30 – 11:00	No. 04	<u>Maria Angela de Barros Correia Menezes</u> , Claudia de Vilhena Schayer Sabino Radojko Jaćimović	History, development and main achievements in twenty-seven years of the establishment of k_0-Instrumental Neutron Activation Analysis based method at CDTN, Brazil
11:00 – 11:30	No. 31	<u>Hamidatou-Alghem Lylia</u> , Slamene Hocine, Akhal Tarik, Djebli Kamel, Zouranen Boussaad	Neutron Activation Analysis Laboratory: Evaluation of three decades of experiment applying INAA, k_0-NAA and RNAA methods
11:30 – 12:00	No. 38	<u>R. Acharya</u> and P.K. Pujari	A Journey of 25 Years of R&D Works on k_0-Based Conventional and Internal Monostandard NAA Using Research Reactors of India And Applications to Diverse Fields
12:00 – 12:30	No. 19	R. van Sluijs	"The Westcott story": The analysis of non-$1/\nu$ nuclides using the k_0-method

Lunch: 12:30 – 14:00 (Local time)



2. Nuclear data

Chair: G. Kennedy

Time	Code	Authors	Title
14:00 – 14:30	No. 33	R. Jaćimović, F. De Corte, G. Kennedy, R. van Sluijs, P. Vermaercke	The 2020 recommended k_0 database
14:30 – 15:00	No. 03	Peter Vermaercke, Attila Stopic	(Re)determination of Q_0 and k_0 factors for ^{124}Sb , ^{122}Sb and $^{122\text{m}}\text{Sb}$
15:00 – 15:30	No. 25	Ho Van Doanh, Pham Van Giap, Tran Quang Thien, Ho Manh Dung	Determination of k_0 and Q_0 factors for five short-lived radionuclides of interest in k_0 -NAA

Break: Coffee/Tea: 15:30 – 16:00

Chair: G. Kennedy

Time	Code	Authors	Title
16:00 – 16:30	No. 32	Vladimir Radulović, Radojko Jaćimović, Andrej Trkov	Determination of the k_0 and Q_0 constants of $^{94,96}\text{Zr}$ for neutron activation analysis
16:30 – 17:00	No. 27	R. van Sluijs, M. Blaauw	Defining " k_0 -factors" for threshold reactions
17:00 – 17:30	No. 34	Radojko Jaćimović	Stability of an Al-0.1%Au alloy

k_0 -ISC Meeting: 18:00 – ...



Tuesday, 7. June 2022

2. Nuclear data (continue)

Chair: R. van Sluijs

Time	Code	Authors	Title
09:00 – 09:30	No. 46	N. Pessoa Barradas, A. Vieira, M. Blaauw	Artificial neural networks for NAA: proof of concept on data analysed with k_0-IAEA
09:30 – 10:00	No. 45	G. Kennedy	Coincidence summing: the neglected nemesis of k_0-NAA
10:00 – 10:30	No. 36	S. K. Samanta, R. Acharya, P. K. Pujari	Standardization of k_0-based Conventional and Internal Monostandard NAA Methods using Apsara-U Research Reactor: Characterization of Irradiation Sites and Validation of Methods

Break: Coffee/Tea: 10:30 – 11:00

3. Neutron Spectrum Characterization

Chair: L. Hamidatou-Alghem

Time	Code	Authors	Title
11:00 – 11:30	No. 17	A. Pungerčič, I. Lengar, T. Goričanec, G. Žerovnik, K. Ambrožič, Ž. Štancar, I. Švajger, V. Radulović, A. Trkov, L. Snoj	Experimental and computational characterisation of the neutron field in JSI TRIGA reactor
11:30 – 12:00	No. 23	Maria Ângela de Barros Correia Menezes, Radojko Jaćimović	Characterization of irradiation channels in the carousel of TRIGA Mark I IPR-R1 research reactor, Brazil, aiming at the application of k_0-standardization method of neutron activation analysis
12:00 – 12:30	No. 29	Guesmia Ahmed, Slamene Hocine, Azli Tarik, Hamidatou-Alghem Lyliya	Characterization of neutron spectrum at NUR research reactor of CRND-ALGERIA for the k_0-based neutron activation analysis



12:30 – 13:00	No. 47	Tukur Muhammad*, Abdussamad Asuku, Iro Yusuf, Ibrahim Musa Umar	Evaluating the drift of f and α -values resulting from NIRR-1's HEU to LEU core conversion
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Lunch: 13:00 – 14:00 (Local time)

Chair: M. Blaauw

Time	Code	Authors	Title
14:00 – 14:30	No. 15	Sebastjan Rupnik, Borut Smodiš	Improved short irradiations at JSI TRIGA reactor
14:30 – 15:00	No. 09	Christian Stieghorst and Zsolt Révay	The NAA instrument at MLZ
15:00 – 15:30	No. 14	Ildikó Harsányi, Zoltán Kis, András Horváth, László Szentmiklósi	Computer simulations to estimate the neutron-activation of irradiated samples

Break: Coffee/Tea: 15:30 – 16:00

4. k_0 -NAA Methodology

Chair: R. Jaćimović

Time	Code	Authors	Title
16:00 – 16:30	No. 06	L. Gačnik, R. Jaćimović	Progress on NAA aided by Geant4 particle simulation
16:30 – 17:00	No. 28	Isaac Kwasi Baidoo, Wilfred Sedofia Massiasta, Bernard Osei, Henry Cecil Odoi, Edward Shitsi	k_0 standardization and implementation of k_0 -IAEA software for Neutron Activation Analysis at the GHARR-1 NAA facility: Ten (10) years' experience
17:00 – 17:30	No. 37	V. Sharma, S. K. Samanta, H.K. Bagla, R. Acharya, P. K. Pujari	Utilization of relative and k_0 -based NAA methods for quantification of trace elements in automobile windshield glass samples for forensic applications
17:30 – 18:00	No. 41	Iliasse Aarab, Hamid Bounouira, El Mahjoub Chakir, Hamid Amsil, Abdessamad. Didi	Utilisation of k_0 -standardisation method of neutron activation analysis for the determination of major and trace elements in medicinal plant of Senhaja Srair region (Morocco)



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Wednesday, 8. June 2022

Workshop trip and lunch



Thursday, 9. June 2022

5. Prompt-gamma NAA

Chair: L. Szentmiklósi

Time	Code	Authors	Title
09:00 – 09:30	No. 08	Zsolt Révay	Spectroscopic data library for PGAA
09:30 – 10:00	No. 11	László Szentmiklósi, Boglárka Maróti, Zoltán Kis	Prompt-gamma activation analysis of bulky and structured samples
10:00 – 10:30	No. 12	Noémi Anna Buczkó, Boglárka Maróti, László Szentmiklósi	Characterization of electronic waste with neutron and X-ray based element analysis techniques

Break: Coffee/Tea: 10:30 – 11:00

Chair: Z. Révay

Time	Code	Authors	Title
10:30 – 11:00	No. 13	Boglárka Maróti, Zoltán Kis, László Szentmiklósi	Non-destructive analysis of structured samples, validation of the MCNP simulations on test objects
11:00 – 11:30	No. 10	Katalin Gméling, Veronika Szilágyi, Ildikó Harsányi, László Szentmiklósi	The role of NAA in the assessment of activation properties of pebbles, used as raw materials in neutron- and gamma-shielding concrete

6. Software

Chair: P. Vermaercke

Time	Code	Authors	Title
11:30 – 12:00	No. 20	R. van Sluijs	Kayzero for Windows, V3, software for NAA using the k_0 -method
12:00 – 12:30	No. 02	Giancarlo D'Agostino, Menno Blaauw, Ho Manh Dung, Marco di Luzio, Radojko Jacimovic, Mauro Da Silva Dias, Renato Semmler,	The 2021 IAEA software intercomparison for k_0 -INAA



		Robbert van Sluijs, Nuno Pessoa Barradas	
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Lunch: 12:30 – 14:00 (Local time)

Chair: P. Bedregal

Time	Code	Authors	Title
14:00 – 14:30	No. 01	<u>Mauro da Silva Dias</u> , Renato Semmler, Marina Fallone Koskinas, Denise Simões Moreira, Ione Makiko Yamazaki, Franco Brancaccio, Lívia Fernandes Barros, Rafael Vanhoz Ribeiro and Thales Salvador Lima de Morais	k0-IPEN: a new software for Instrumental Neutron Activation Analysis
14:30 – 15:00	No. 21	<u>M. Di Luzio</u> , G. D'Agostino	Use of the k0-INRIM 2.0 software in k0-INAA
15:00 – 15:30	No. 24	<u>Ho Manh Dung</u> , Tran Quang Thien, Ho Van Doanh, Tran Tuan Anh, Truong Truong Son, Phonesavanh Lathdavong	Development of a PC program for the k0-based epithermal neutron activation analysis

Break: Coffee/Tea: 15:30 – 16:00

7. Validation of k_0 -NAA

Chair: R. Acharya

Time	Code	Authors	Title
16:00 – 16:30	No. 07	<u>L. Gačnik</u> , R. Jačimović	Expanded functionality of particle-simulation aided NAA
16:30 – 17:00	No. 42	<u>H. Bounouira</u> , H. Chahidi, H. Amsil, A. Didi, I. Aarab	Combination of k0-IAEA and k0 for windows for the characterization of neutron flux parameters at Triga Mark II Research Reactor, Morocco
17:00 – 17:30	No. 22	<u>Radojko Jačimović</u> and Marijan Nečemer	Comparison of EDXRF and k0-INAA methods used for multielement analysis of organic and inorganic materials
17:30 – 18:00	No. 40	<u>Minas Elfatih Ali Ahmed</u> , Hamid Bounouira, Mohammed	Utilization of the k0_IAEA program for the determination of Rare Earth



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 Institut
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Ljubljana, Slovenija

		Adam Abbo, Hamid Amsil, Abdessamad Didi, Ilias Aarab	Elements in Soil Samples from gold mining area in Sudan
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Friday, 10. June 2022

8. Applications of k_0 -NAA

Chair: M.A.B.C. Menezes

Time	Code	Authors	Title
09:00 – 09:30	No. 05	<u>Mohamed Soliman</u> , Fatma S. Abdou, Abdullah M. Othman, Mohamed Shabib	Determination of Ca-substituting elements in skeleton of corals collected from Red Sea using k_0-NAA
09:30 – 10:00	No. 18	<u>N.A. Nursapina</u> , R. Jacimovic, I.V. Matveyeva, Sh.N. Nazarkulova	Application of k_0-INAA for analysis of fertilizers
10:00 – 10:30	No. 26	<u>Ho Manh Dung</u> , Tran Tuan Anh, Tran Quang Thien, Ho Van Doanh	Analysis of automobile window glass samples by the k_0-based Neutron Activation Analysis for forensic applications
10:30 – 11:00	No. 43	<u>Russel Rolphe Caroll Moubakou Diahou</u> , Hamid Bounouira, Guy Blanchard Dallou, Hamid Amsil, Abdessamad. Didi, Iliasse Aarab, Rajaà Cherkaoui El Moursli, Clobite Bouka Biona	NAA study for major and trace-elements in soils and phosphate rocks of a prospective phosphate mining area in Hinda district, Republic of Congo

Break: Coffee/Tea: 11:00 – 11:30

Chair: Ho Manh Dung

Time	Code	Authors	Title
11:30 – 12:00	No. 16	<u>Rodrigo R. Moura</u> , Maria Ângela de B.C. Menezes	After analysis by k_0-NAA, how long should be a sample in an intermediate storage according to the Brazilian Standard NN 8.01?
12:00 – 12:30	No. 30	<u>Hamidatou-Alghem Lylia</u> , Slamene Hocine, Djebli Kamel	Performance Assessment Laboratory Applying k_0-Standardization At Es-Salam Research Reactor During 2021-2022
12:30 – 13:00	No. 35	<u>Toledo JR</u> , Krambrock K, Leal AS, Menezes MABC, Jacimovic R	Determination and characterization of impurities in MoS₂ by k_0 instrumental neutron activation analysis



13:00 – 13:30	No. 39	<u>P. Bedregal</u> , M. Ubillús, C. Cáceres, R. Garay, R. Urdanivia, J. Rojas	Multielemental determination of PM₁₀ and PM_{2.5} to evaluate the level of contamination and its sources in an urban area
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13:30 Closing ceremony

Lunch: 14:00 – 15:00 (Local time)