

CURICULUM VITAE

1. Personal data

FAMILY NAME: Ionita

NAME: Ion

BIRTH DATE: October 24, 1950

BIRTHPLACE: Bucharest, Romania

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NATIONALITY: Romanian

MARITAL STATUS: Married with Ionita Maria

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2. Summary of Work Experience

1990 till present. I work at Research Reactor Department as senior researcher.

Neutron Scattering

Presently, I am involved in structure analysis by thermal neutron scattering, using one high resolution crystal neutron diffractometer and a SANS facility, both installed at the radial beam of the SSR TRIGA reactor.

3. Expertise

Instrumentation and neutron optics

I am expert in neutron optics and neutron scattering instrumentation. A new concept of high resolution neutron diffractometer has been introduced by a group formed by me, dr. A.D.Stoica and dr. M.Popovici. The basic characteristic of these focusing configurations are:

- the absence of the Soller collimators
- a take off angle for the monochromatic beam either less than 95 degrees or greater than 130 degrees
- using of the bent crystals (preferably perfect crystals) in asymmetric reflection as monochromators
- sample rotation during the diffraction measurements to fulfill the focusing condition

- possibility to use large sample without loss in the resolution performances

The high resolution crystal neutron diffractometer existing in my institute was designed and realized according to these requirements.

Neutron optics computational instruments

I have realized, together with dr. Stoica and dr. Popovici the programs DAX and TRAX, allowing for the design and the performances evaluation of the double and triple axis instruments respectively.

4. Education

- Doctoral studies in Neutron Diffraction, University BUCHAREST, Romania, Thesis " High Resolution Neutron Diffraction" , 1997
- IAEA Training course on the Research Reactors Utilization, 1983, Budapest
- Physics studies (physicist), Faculty of Physics, University BUCHAREST, Romania, 1969 to 1974 graduated 1974
- High School graduate with bacalaureat diploma, 1965-1969, Liceul D.Cantemir, Bucharest, Romania
- Primary School 1957-1964, Scoala B. Delavrancea, Bucharest, Romania

5. Professional Work History Chart

From 1978 till present employee at Institute for Nuclear Research (SCN) Pitesti, Romania.

6. Language Proficiency

- Romanian - excellent knowledge
- English – fluent
- French – working knowledge
- Russian - fair

7. Computer and office skill

I am familiar with PC computers. I have worked with DOS system; I used to work with the computer utilities as OFFICE.

8. Other important information

1. In 2003 I have been elected as viceprezident of the Romanian Neutron Scattering Society, affiliated at the European Neutron Scattering Association (ENSA)
2. I attended the several internal and international conferences as the IAEA conference held Lisbon, September 1997, in septembrie 1999, The 2-nd ECNS Budapesta, 1-4 septembrie 1999, ICNS Munchen-2001, ECNS Montpellier 2003, CMD Praga-2004.
3. I have published several papers as below
4. I was involved in a comprehensive program partially supported by IAEA Vienna through the contracts 4941, 4941RB, 3496 R1, 3496 R1/RB, aiming to use new techniques to get better performances in crystal neutron diffractometry. A new concept of high resolution focusing configuration, aiming to use the focusing effects in the phase-space rather than the spatial focusing at sample or anywhere else, was developed offering very promising opportunities in the research centers where only medium flux neutron sources are available. Further improvements have been obtained through a program partially supported by IAEA Vienna, contract 10516/RO, involving a complete theoretical description of the line shifts appearing in focusing configurations, a proper description of the reflectivity properties and of the surface shape for pneumatically bent crystals, a first version of a Rietveld program taking account for the significant peculiarities of the focusing geometry to allow a correct processing of the diffraction diagrams. First applications using this configuration were performed including first attempts in realizing stress determinations.

4. I am representing the Institute for Nuclear Research at the European network NET
5. A have contributed to the work leading to a new concept of high resolution focusing configuration, aiming to use the focusing effects in the phase-space rather than the spatial focusing at sample or anywhere else and offering very promising opportunities in the research centers where only medium flux neutron sources are available.

The main characteristics of these focusing configurations are the use of the bent perfect crystals in asymmetric reflexion as monochromators, the absence of the Soller collimators, a take-off angle either under 90° or greater than 120° and the rotation of the plate-like sample during the diffraction pattern raise in order to fulfill the focusing conditions. The perfect crystal is bent pneumatically but it could be promising to have different horizontal and vertical radii of curvature and therefore to use an alternative way of bending, as happens in the case of Missouri group.

Further improvements have been obtained involving a complete theoretical description of the line shifts appearing in focusing configurations, a proper description of the reflectivity properties and of the surface shape for pneumatically bent crystals, a first version of a Rietveld program taking account for the significant peculiarities of the focusing geometry to allow a correct processing of the diffraction diagrams.

9. References

Dr. N.C.Popa, Deputy director LNF-IUCN Dubna, Phone 4 021 6888265, E-mail: popa@nf.jinr.ru

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Dr.H.Mutka, ENSA prezident, e-mail mutka@ill.fr

Dr. L.Rosta, e-mail rosta@szfki.hu

10 Published Papers:

1. **M.Popovici, A.D.Stoica and I.Ionita** – Optics of Curved-Crystal Neutron Spectrometers I Three-Axis Spectrometers, **J.Appl.Cryst.**, **20**, **1987**.
2. **M.Popovici, W.B.Yelow, R.Berliner, A.D.Stoica, I.Ionita, R.Law** – Curved crystal optics and the resolution formalism: programs and optimization procedures, **Nuclear Instr. And Meth.**, **A 338**, **1994**, pag.99-110.
3. **I.Ionita, M.Ciocanescu, A.D.Stoica** – Thermal Neutrons Diffraction in Focusing Configuration, **Supplements of Balkan Phys. Letter**,**5**, **1997**, **pp 5.27.**;A 3-a Conf.Balcanica de Fizica, Cluj-Napoca, Romania, **1997**.
4. **I.Ionita, A.D.Stoica, M.Popovici, N.C.Popa** – Design for a Focusing High-Resolution Neutron Crystal Diffractometer, **Nuclear Instruments & Methods**, **A 431**, pp509-520, **1999**.
5. **I.Ionita, A.D.Stoica** – The Crystal Neutron Diffractometer Resolution Function Spatial Effects Included, **J. Applied Cryst.**, **33**, **2000**, pp1067-1074; TRIGA Conf., Ljubljana, 1994;

6. **N.C.Popa, I.Ionita**, The Instrumental Profile for a Neutron Powder Diffractometer in Focusing Geometry, **Physica B** **276-278**, p.192-194, **2000**. 2-nd European Conference on Neutron Scattering, Budapest, 1-4 sept.1999.
7. **I.Ionita** – The Resolution Function for a Time of Flight Neutron Diffractometer with Curved Slits Chopper, **J. Applied Cryst.**, **34**, **2001**, 252-257.; TRIGA Conf., Mainz, 1996
8. **I.Ionita**, Optimization Conditions in Pulsed Source TOF Neutron Spectrometry, **Appl. Phys. A** **74**, S70-S72, **2002**, YUNSC Conference, octomber 2-5,2000, Belgrad, Yugoslavia, ICNS 2001, Munchen, September.
9. **I.Ionita**, Focusing conditions in neutron spectrometry, **Nuclear Instr. And Methods in Physics Research, A** **489 (2002)**, 313-336.
10. **I.Ionita**, The resolution function for a time-of-flight hybrid neutron spectrometer with crystal monochromator and chopper, **J. Applied Cryst.**, **34**, **2002**, 581-588.
11. **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer, **Nuclear Instruments & Methods, A** **513**, pp 511-523, **2003**.
12. **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer with crystal monochromator, **Physica B, Volume 350 (2004)**, **E831-E835**, 3rd European Conference on Neutron Scattering, Montpellier, 3-6 September 2003.
13. **I.Ionita**, Optimizing the Neutron Diffractometers Configurations, **Physica B, Volume 350 (2004)**, **E675-E678**, 4-th Balkan Physics Union Conference, Veliko Tarnovo, Bulgaria, 22-26 aug. 2000, International Conference on Research Reactor Utilization, Safety, Decommissioning, Fuel and Waste Management, Santiago de Chile, 10-14 November 2003, 3-rd European Conference on Neutron Scattering, Montpellier, 3-6 September 2003.
14. **I.Ionita, B.Grabcev, S.Todireanu, F.Constantin, V.Shvetsov, E.Anghel, G.Popescu, M.Mincu, A.Datcu**, SANS facility at the Pitesti 14MW TRIGA reactor, Crystallography Reports, Vol.51, Suppl. 1, Dec. 2006, pp. S27-s3, A 5-a Conferinta privind utilizarea radiatiei X, sincrotron, a neutronilor si a electronilor la investigatia nanomaterialelor si a nanosistemelor, Institutul de Crystalografie Moscova, 15-16 nov. 2005, Conferinta SRF, Bucuresti, 12-16 Sept. 2005.
15. **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer with polycrystalline filter as monochromator, European Spallation Source Conf., Bonn, 2002, 16-17 mai, Fifth General Conference of the Balkan Physical Union, August 25-29, **2003**, Vrnjacka Banja, Serbia & Montenegro, **ISBN 86-902537-4-2**.
16. **I.Ionita**, Residual Stress determinations in Q-space Focusing Configurations, ECNS Conference, 25-29 June 2007, Lund, Sweden
17. **I.Ionita**, Optimizing Conditions Suited for Stress Determinations in Q-Space Focusing Configurations, International Conference on Research Reactors: Safe Management and Effective Utilization, 5 – 9 November 2007, Sydney, Australia
18. **I.Ionita, D.Ciobanu, E. Anghel, F.Oprea, C.Dianu, C.Agapi, C.Fulger, A.Ionescu, I.Dranga**-Self-Control System For THE DR1 High Resolution Focusing Neutron Crystal Diffractometer Operation, Technical Committee Meeting on Improvement of the Data Acquisition for Ressearch Reactors and Experiments, Pitesti, Romania, 19-21 october 1998, 5-th General Conference of the Balkan Physical Union, August 25-29, **2003**, Vrnjacka Banja, Serbia and Montenegro, **ISBN 86-902537-4-2**.
19. **I.Ionita, T.Meleg**, Hydrogen concentration determinations using focusing configurations in crystal neutron diffractometry, Conf. SRF-2001, Iasi, 18-20 Oct.,

5-th General Conference of the,Balkan Physical Union, August 25-29, 2003, Vrnjacka Banja, Serbia and Montenegro, ISBN 86-902537-4-2.

20. **I.Ionita, M.Popovici**, Dax-A Computer Program To Evaluate The Crystal Neutron Diffractometers Performances, Fifth General Conference of the,Balkan Physical Union, August 25-29, 2003,Vrnjacka Banja, Serbia and Montenegro, ISBN 86-902537-4-2, The Condensed Matter Division (of European Physiscs Society) Conference (CMD), Prague, 18-23 July 2004.
21. **I.Ionita, M.Ciocanescu, A.D.Stoica, M.Popovici** – Focusing high resolution neutron crystal diffractometry, TRIGA Conf. Bucuresti, 1992.
22. **I.Oprea, D.Musat, I.Ionita** – Dozim.-Dose Evaluation Code for Nuclear Accident, TRIGA Conf., Bucuresti, 1992.
23. **I.Ionita, M.Ciocanescu, A.D.Stoica, M.Popovici, M.Preda, D.Ciobanu, B.Ciorneiu, P.Timis** – DIR1 High Resolution Focusing Crystal Neutron Diffractometer Installed at NRI Pitesti Steady State Reactor, TRIGA Conf, Mainz, 1996.
24. **I.Ionita, A.D.Stoica, N.C.Popa** – Focusing Configurations and Optimization Conditions in Crystal Neutron Diffractometry, Yugoslav Nuclear Society Conference, Belgrad, sept.1998, 2-nd European Conference on Neutron Scattering , Budapest, 1-4 sept.1999.
25. **I.Ionita, N.C.Popa, A.D.Stoica**-Set of Programs for The Focussing Configurations Experimental Data Processing, , Technical Committee Meeting on Improvement of the Data Acquisition for Ressearch Reactors and Experiments, Pitesti, Romania, 19-21 october 1998, International Conference on Research Reactor Utilization, Safety, Decommissioning, Fuel and Waste Management, Santiago de Chile, 10-14 November 2003.
26. **I.Ionita**, Techniques to Optimize The Neutron Diffractometers Configurations Using Medium Flux Steady State Reactors As Neutron Sources, 16-th Triga Conf., sept.. 2000, Pitesti, Romania.
27. **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer with mechanical monochromator, International Conference on Research Reactor Utilization, Safety, Decommissioning, Fuel and Waste Management, Santiago de Chile, 10-14 November 2003, The Condensed Matter Division (of European Physiscs Society) Conference (CMD), Prague, 18-23 July 2004, Conf. SRF-2002, Tg.Mures, 26-28 Sept..
28. **I.Ionita, E.Anghel, M.Ciocanescu, F.Oprea, G.Popescu, M.Mincu, A.Datcu, V.Florescu**, Improved Self-control System for the DR1 High Resolution Focusing Neutron Crystal Diffractometer Operation, Conferinta utilizatorilor TRIGA, 16-19 Sept. 2004, Viena, Conferinta SRF, Pitesti, 9-11 Sept. 2004.
29. **I.Ionita, A.D.Stoica, N.C.Popa**, Focusing conditions and optimization conditions in crystal neutron diffractometry, Conf. SRF-1998, 16-18 Sept., Constanta.
30. **I.Ionita**, A New Approach To Optimize The Neutron Diffractometers Configurations, Conf. SRF-2000, 21-23 Sept. Constanta.
31. **I.Ionita, S.Rapeanu, A.D.Stoica, V.Tripadus, D.Sachelarie, M.Stoica** – Dozimetrie de neutroni rapizi cu detectori de Si folosind metoda protonilor de recul, Conf.ICEFIZ, Bucuresti, 1981.
32. **I.Ionita, A.D.Stoica, V.Tripadus** – Conditii de focalizare si configuratia optima la spectrometrul hibrid de neutroni, Conf.ICEFIZ, Bucuresti, 1982.
33. **M.Popovici, A.D.Stoica, I.Ionita** – Noi posibilitati in spectrometria de neutroni, Conf. IRNE, 1985.

34. **I.Oprea, D.Musat, I.Ionita** – Evaluarea dozelor de radiatii la un accident nuclear, Conf.IRNE, 1985.
35. **I.Ionita, D.Musat, I.Pavel** – Metoda de determinare a concentratiei de hidrogen in hidrura de zirconiu prin masuratori de transmisie in flux de neutroni, Conf.IRNE, 1986.
36. **I.Ionita, M.Popovici, A.D.Stoica** – Optica difractometrelor de neutroni, Conf.IRNE, 1987.
37. **I.Ionita, M.Popovici, A.D.Stoica** – Bloc monocromator pentru neutroni cu doua cristala curbate, Conf.IRNE, 1987.
38. **I.Ionita, M.Popovici, A.D.Stoica** – Proiect de configuratie de inalta rezolutie pentru difractometria de neutroni, Conf.IRNE, 1988.
39. **M.Popovici, M.Ciocanescu, I.Ionita, A.D.Stoica, B.Ciorneiu, P.Timis, A.Ionescu** – Instalatie automata pentru curbarea cristalelor in forma de disc, Conf.IRNE, 1988.
40. **I.Ionita, G.Popescu** – Calculul functiei de transmisie pentru un canalizor in forma de trunchi de piramida, Conf.Soc.Fizica, Cluj, 1990.
41. **I.Ionita, M.Popovici, A.D.Stoica** – Optica difractometrelor de neutroni cu cristal. Program de calcul numeric pentru largimile si intensitatile liniilor de difractie, Conf.Soc.Fizica, Cluj, 1990.

11. Research work performed in SCN Pitesti

1. **R.I 132/1981**, Stabilirea metodicii de lucru la spectrometrul de neutroni si calibrarea lui pentru determinari de sectiuni eficace de imprastiere
 1. **RI1631/1985**, Lucrari metodice privind imbunatatirea performantelor spectrometrului de neutroni. Set de programe pentru calculul rezolutiei si luminozitatii spectrometrelor de neutroni incluzand efectele spatiale
 2. **R.I 2013/1986**, Metoda de determinare a concentratiei de hidrogen in hidrura de zirconiu prin masuratori de transmisie in flux de neutroni
 3. **R.I 2616/1888**, Sistem de deplasare a detectorilor la spectrometrul de neutroni TRIGA
 4. **R.I.5168/1997**, Optimizarea configuratiei zonei active a reactorului TRIGA SSR in vederea obtinerii unui flux de neutroni termici maxim prin canalul radial
 5. **R.I. 5935/2000**, Realizarea si testarea sistemului de calcul pentru optimizarea si evaluarea performantelor difractometrului cu focalizare DIR1
 6. **R.I. 5787/2000**, Masuratori de tensiuni pe esantioane prelevate din tuburi de presiune utilizand difractometrul de neutroni in timpul campaniilor de iradiere la reactorul TRIGA
 7. **R.I. 6144/2001**, Perfectionarea sistemului de comanda si control al difractometrului de neutroni DIR1 in vederea realizarii unei mai bune fiabilitati in functionare si a adaptarii acestuia la exigentele unei configuratii cu detector pozitional
 8. **R.I. 6203/2001**, Proiect de instalatie SANS (imprastiere la unghi mic)
 9. **R.I. 6393/2002**, Instalatie de analiza prin studiul imprastierii la unghiuri mici
 10. **R.I 6461**, Sistem de comanda pentru difractometrul de neutroni
 11. **R.I 6803/2003**, Instalatie de analiza prin studiul imprastierii neutronilor la unghiuri mici
 12. **R.I. 6697/2003**, Sistem de comanda pentru difractometrul de neutroni
 13. **R.I 6980/2004**, Punerea in functiune preliminara si masuratori test pentru instalatia de imprastiere a neutronilor la unghi mic (SANS)
 14. **R.I. 6981/2004**, Masuratori test cu difractometrul de neutroni in configuratie modificata
 15. **R.I. 6868/2004**, Elaborarea procedurilor de exploatare a instalatiilor de difractie cu neutroni

CURICULUM VITAE

1. Date personale

NUME: Ionita

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2. Experienta profesionala

1990 pana in prezent. Activez in cadrul Sucursalei pentru Cercetari Nucleare din cadrul Regiei Autonome pentru Activitati Nucleare ca cercetator principal II.

3. Domeniu de competenta

Imprastiere cu neutroni

In prezent sunt implicat in analiza structurala prin imprastiere cu neutroni termici, folosind un difractometru cu cristal de inalta rezolutie cu focalizare si un spectometru cu imprastiere la unghi mic, ambele instalate la canalul radial al reactorului TRIGA SSR.

Instrumentare si optica neutronilor

Sunt expert in optica neutronilor si in proiectarea instrumentelor ce folosesc imprastierea neutronilor termici. Impreuna cu Dr. A.D. Stoica si Dr.M.Popovici am dezvoltat conceptul de difractometru cu cristal de inalta rezolutie cu focalizare, concept acceptat de comunitatea cercetatorilor din domeniu.

Caracteristicile de baza ale configuratiilor focalizante sunt:

- absenta colimatoarelor Soller
- un unghi de extragere a fascicolului monocromatic fie mai mic de 95 grade, fie mai mare de 130 grade
- utilizarea cristalelor curbate (preferabil cristale perfecte) in reflexie asimetrica ca monocromatori
- rotirea probei in timpul ridicarii diagramei de difractie pentru a fi indeplinita conditia de focalizare pentru fiecare valoare a unghiului de imprastiere
- Posibilitatea utilizarii probelor extinse fara modificare proprietatilor de rezolutie

Difractometrul cu cristal de inalta rezolutie existent in SCN Pitesti a fost proiecta in acord cu aceste cerinte.

Instrumente de calcul in optica neutronilor

Am realizat impreuna cu dr. Stoica si dr.Popovici programele DAX si TRAX ce permit proiectarea si evaluarea performantelor instrumentelor cu doua respectiv cu trei axe.

4. Studii

- Doctorat in domeniul analizei structurale prin difractie cu neutroni, Universitatea Bucuresti, Romania, Teza " Difractia de neutroni de inalta rezolutie" , 1997
- Cursul AIEA privind utilizarea reactorilor de cercetare, 1983, Budapesta
- Studii de fizica, Facultatea de Fizica, Universitatea Bucuresti, Romania, 1969 - 1974 absolvita in 1974
- Liceu absolvit cu diploma de Bacalaureat, 1965-1969, Liceul D.Cantemir, Bucuresti, Romania
- Scoala primara 1957-1964, Scoala B. Delavrancea, Bucuresti, Romania

5. Activitate profesionala

Din 1978 pana in prezent sunt angajat la Sucursala pentru Cercetari Nucleare (SCN) Pitesti, Romania.

6. Limbi straine cunoscute

- Engleza – foarte bine
- Franceza – bine
- Rusa - satisfactor

7. Cunostiinte privind operarea calculatoarelor

Folosesc curent PC. Am lucrat cu sistemul DOS; folosesc curent facilitatile PC precum OFFICE.

8. Alte informatii importante

1 In 2003 am fost ales vicepresedinte al Societatii de Fizica Neutronilor din Romania, afiliata la Asociatia Europeana pentru Imprastierea Neutronilor (ENSA). Sunt reprezentantul SFNR la ENSA.

2. In 2005 am fost ales vicepresedinte al Societatii de Fizica, filiala Arges

3. Am participat la diferite conferinte interne si internationale precum conferinta AIEA ORGANIZATA LA Lisabona in septembrie 1997, conferinta ECNS 1999, Budapesta, conferinta ICNS Munchen 2001, conferinta ECNS Montpellier 2003, conferinta CMD Praga 2004.

4. Sunt referent la **Nuclear Instr. And Methods in Physics Research, A**

5. Am publicat diferite lucrari stiintifice in reviste de specialitate, conform listei de mai jos.

6. Am fost implicat in diferite programe finantate de IAEA Viena, contracte 4941, 4941RB, 3496 R1, 3496 R1/RB, care au avut ca rezultat impunerea unui nou tip de configuratie focalizanta in difractometria cu neutroni termici. In cadrul contractului 10516/RO am fost responsabil de contract.

7. Fac parte din reseaua europeana NET, reprezentand SCN in acest organism european.

8. Am participat la lucrarile care au condus la elaborarea unui nou concept de configuratie focalizanta in difractometria de neutroni. Caracteristicile acestui nou concept de configuratie de inalta rezolutie, ce ofera posibilitatea obtinerii unor rezolutii inalte chiar in cazul unor surse de

neutroni de intensitate medie, prin folosirea unor solutii noi pe plan mondial, sunt:

- lipsa colimatoarelor Soller
- folosirea cristalelor perfecte curbate, in reflexie asimetrica, ca monocromatoare
- un unghi de extragere a fascicolului monocromatic fie mai mic de 90° fie mai mare decat 120°
- rotirea probei, in timpul ridicarii diagramei de difractie, pentru indeplinirea conditiilor de focalizare

9. Referinte

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10 Lucrari publicate:

- 1 **M.Popovici, A.D.Stoica and I.Ionita** – Optics of Curved-Crystal Neutron Spectrometers I Three-Axis Spectrometers, **J.Appl.Cryst.**, **20**, **1987**.
- 2 **M.Popovici, W.B.Yelow, R.Berliner, A.D.Stoica, I.Ionita, R.Law** – Curved crystal optics and the resolution formalism: programs and optimization procedures, **Nuclear Instr. And Meth.**, **A 338**, **1994**, pag.99-110.
- 3 **I.Ionita, M.Ciocanescu, A.D.Stoica** – Thermal Neutrons Diffraction in Focusing Configuration, **Supplements of Balkan Phys. Letter**, **5**, **1997**, pp **5.27**.; A 3-a Conf.Balcanica de Fizica, Cluj-Napoca, Romania, **1997**.
- 4 **I.Ionita, A.D.Stoica, M.Popovici, N.C.Popa** – Design for a Focusing High-Resolution Neutron Crystal Diffractometer, **Nuclear Instruments & Methods**, **A 431**, pp509-520, **1999**.
- 5 **I.Ionita, A.D.Stoica** – The Crystal Neutron Diffractometer Resolution Function Spatial Effects Included, **J. Applied Cryst.**, **33**, **2000**, pp1067-1074; TRIGA Conf., Ljubljana, 1994;
- 6 **N.C.Popa, I.Ionita**, The Instrumental Profile for a Neutron Powder Diffractometer in Focusing Geometry, **Physica B 276-278**, p.192-194, **2000**. 2-nd European Conference on Neutron Scattering , Budapest, 1-4 sept.1999.
- 7 **I.Ionita** – The Resolution Function for a Time of Flight Neutron Diffractometer with Curved Slits Chopper, **J. Applied Cryst.**, **34**, **2001**, 252-257.; TRIGA Conf., Mainz, 1996
- 8 **I.Ionita**, Optimization Conditions in Pulsed Source TOF Neutron Spectrometry, **Appl. Phys. A 74**, S70-S72, **2002**, YUNSC Conference, octomber 2-5,2000, Belgrad, Yugoslavia, ICNS 2001, Munchen, September.
- 9 **I.Ionita**, Focusing conditions in neutron spectrometry, **Nuclear Instr. And Methods in Physics Research**, **A 489 (2002)**, 313-336.
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- 11 **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer, **Nuclear Instruments & Methods, A 513**, pp 511-523, **2003**.
- 12 **I.Ionita**, The resolution function for a pulsed-source TOF neutron spectrometer with crystal monochromator, **Physica B, Volume 350 (2004), E831-E835**, 3rd European Conference on Neutron Scattering, Montpellier, 3-6 September 2003.
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