

Curriculum Vitae

Dr Lonzeche Lodya

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Personal Details:

Surname: Lodya
First name: Lonzeche
Christian names: Jean Augustin (Not shown on official documents)
Gender: Male
First Language: French
Second Language: English
Other Languages: Swahili, Lingala
Country: South Africa
Work No: 00 27 16 960 2862
Email Address: lonzeche.lodya@sasol.com

Employment History : 1

Dates: 8/1/2002 - Ongoing
Company: Sasol Technology (Pty) Ltd
Department: Research & Development
Functional area: Analytical Solutions
Group: Materials Science
Designation: Principal Scientist
Function: Line Manager: Mössbauer Spectroscopy and Magnetism Group

Responsibilities:

- Sasol expert in Mössbauer Spectroscopy and Magnetic measurements techniques.
- Formulate Mössbauer Spectroscopy and Magnetism group strategy and ensure its alignment with the overall strategy of Sasol Corporate.
- Provide a work environment to the Mössbauer Spectroscopy and Magnetism group that is safe from harm. Demonstrate visible & felt leadership with respect to SH&E to the MAS/Magnetism group;

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ensure the SH&E Systems are fully entrenched and provide the required outcomes.

- Complete procurement process for budgeted items according to the planned timeline.
- Commission new instruments and maintain the existing ones in working order.
- Interact with the global and international scientific community to evaluate new techniques for their implementation within Sasol.
- Manage all operations in the Mössbauer spectroscopy and Magnetism laboratory. Assume the overall accountability for the Mössbauer spectroscopy and magnetism laboratory and ensure that all instruments are maintained and operate smoothly.
- Approve and ensure quality of all data and reports issued by the Mössbauer spectroscopy and Magnetism group.
- Provide Support to Sasol Projects and Sasol Business Units.
- Provide Technical training and coaching to new employees.

Competencies/Skills/Knowledge/

Attributes:

- PhD in Physics, Specialise in Materials Science
- Expertise in Mössbauer Spectroscopy and Magnetism
- Master of Business Leadership (MBL).
- Expertise in strategy formulation
- Expertise in knowledge transfer.

Employment History : 2

Dates: 1/1/1994 - 7/31/2002

Company: Vista University (now part of the University of Johannesburg)

Faculty: Science

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Department: Physics
Designation: Lecturer
Function: Sub-Head of Physics Department in charge of the Soweto Campus

Responsibilities:

- Manage the department of Physics on the Soweto campus
- Lecture Physics to undergraduate and postgraduate students
- Supervise research projects for undergraduate and postgraduate students
- Conduct research in Materials Characterisation
- Manage Mössbauer Spectroscopy Research Laboratory

Competencies/Skills/Knowledge/

Attributes:

- Expert in Mössbauer Spectroscopy.

Employment History : 3

Dates: 10/1/1978 - 12/1/1991
Company: University of Zaïre (now D.R. Congo), "Institut Supérieur Pédagogique (ISP) de Bunia"
Faculty: Science
Department: Maths-Physics
Designation: Lecturer
Function: Sub-Dean in Charge of Academic Affairs (1986 – 1991)

Responsibilities:

- Manage academic affairs for the Faculty of Science
- Lecturer Physics to undergraduate students
- Supervise research projects for undergraduate students
- Conduct research in Materials Science and in Physics Education
- Supervise further training activities for High School Teachers with the district of ITURI.

Competencies/Skills/Knowledge/

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Attributes: Expertise in Solid State Physics

Qualifications:

School Education:

High School: Saint Joseph College, Bunia (D.R. Congo)

Date Graduated: 1972

Highest Std/Grade Passed: Diplôme d'Etat (Equivalent of Grade 12)

<u>Final Year Subjects</u>	<u>Grade</u>	<u>Symbol</u>
Biology	SG	B
Chemistry	HG	C
English	SG	C
French	HG	C
Geography	SG	B
History	SG	B
Maths	HG	A
Physics	HG	A

Tertiary Education :

<u>Institution</u>	<u>From-To</u>	<u>Qualification</u>	<u>Major Subjects</u>	<u>Year Graduated</u>
UNISA/Graduate School of Business Leadership (SBL)	2005 - 2009	Master of Business Leadership	Corporate Strategy, Project Management	2010
Rand Afrikaans University	1997 - 2003	Philosophiae Doctor (PhD)	Physics	2003
University of the Witwatersrand	1992 - 1995	Master of Science (MSc)	Physics	1995
University of Kinshasa	1976 - 1978	Licence in Physics	Physics	1978
University of Kinshasa	1972 - 1976	Bachelor of Science	Physics, Chemistry, Maths	1976

Other Courses

- 9 months training in Physics Education and Computer Assisted Education (Catholic University of Louvain, Louvain-La-Neuve, Belgium (September 1985 to June 1986)
- Sasol Sponsored courses: Focus (Time Management), Project Management, 7 Habits of Highly Effective People, Safety Representative Trainings, Coaching & Mentoring, Sasol

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2020, etc.)

Publications and Conferences

1. List of publications (refereed Journals and Conferences proceedings):

- J A L Lodya, T Seda, A M Strydom and S S Manzini. Characterization of Fe/C catalysts supported on Al₂O₃, SiO₂ and TiO₂, J.Phys.: Conf. Ser. **200** (2010) 082016.
- JAL Lodya, H Gericke, J Ngubane and TH Dlamini. Synthesis of Fe carbides species by reactive milling, Hyperfine Interactions, **190** (2009) 219 – 225.
- J.A.L. Lodya, Hi. Alberts and A.R.E. Prinsloo, High-pressure ultrasonic properties of spin-density-wave Cr-Re alloy single crystals, J. Alloys Comp. **340** (2002) 27-38. Corrigendum: J. Alloys Comp. **361** (2003) 320-321.
- J,A,L, Lodya, H.L, Alberts and P. Smit, High-pressure magnetic phase diagram of an antiferromagnetic Cr + 0.50 at% Re alloy single crystal, J. Alloys Comp. **320** (2001) 40-45.
- J.A.L. Lodya, P. Smit and H.L. Alberts, Effect of electron concentration on the magnetic phase diagrams of Cr-Al alloys, J. Appl. Phys. **81** (2000) 4888-4890.
- J.A. Lodya, H. Pollak, K.S. Rane, Didyadata and M.S. Verenkar, End products of the thermal decomposition of ferrous oxalate dehydrate (FeC₂O₄.2H₂O) an amorphous FeOOH characterised by Mossbauer spectroscopy, X-ray diffraction and magnetic measurements. Hyperfine Interactions, **C-I** (1996) 480-483.
- M, Gulumian, J.A.L. Lodya, R.E.G. Rendall, J.A. van Wyk and H. Pollak, Mössbauer spectroscopy investigations of South African foudry dust clouds, Nuovo Cimento, **D50** (1996) 909-912.
- H. Pollak, U. Karfunkel, J.A.L. Lodya and N. Mala, Decomposition of an Fe-Cr 38 wt% chromium stainless steel at 4Th °C. Hyperfine Interactions, **94** (1994) 2365-2360.
- J.A.L. Lodya, H. Pollak, J. Nell and A. Alberts, Mossbauer spectroscopy and magnetic susceptibility studies of natural chromites. Hyperfine Interactions. **93** (1994) 1789-1794.
- J. Nell, H. Pollak and J.A.L. Lodya, Intersite cation partitioning in natural and synthetic alpha-(Fe,Mn)2O₃ (bixbyite) solid solutions determined from ⁵⁷Fe Mossbauer spectroscopy. Hyperfine Interactions. **91** (1994) 601-605.
- L. Lodya, Analyse des erreurs commises par les élèves de Bunia dans l'étude des circuits électriques. Ujuvi. **11** (1990) 103-125.
- L. Lodya, P. Dulieu and M. Katsuva, Evaluation du niveau d'acquisition des concepts fondamentaux de la Physique par les élèves de Bunia, Scientia. **3** (1987) 137-156.

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- L. Lodya, L'Etude des laves du volcan Nyiragongo par la Spectroscopy Mossbauer. Ujuvi. **10** (1989) 17-33.
- L. Lodya and D. Dhedonga, L'informatique, L'Etat et le Droit de l'Homme, Philo, Mag., 1982.

2. Other publications:

- More than 20 posters presented at International Conferences.
- More than 25 posters presented at National Conferences.

Awards received in the 5 last years:

- Sasol Recognition Certificate for building up a truly world-class Mössbauer Spectroscopy and Magnetism laboratory at Sasol Technology, Research & Development in 2009.

Extra-mural activities & interests:

- Farming activities
- Watching Documentaries and Sports over the weekends

References:

- Reference 1:** Name: Dr Bongani Nkosi
Company: Sasol Technology (Pty) Ltd
Work phone number: 00 27 16 960 2889
Cell number: 00 27 82 554 1298/00 27 79 511 7101
Email address: Bongani.nkosi@sasol.com
Relationship: Functional Manager: Analytical Solutions
- Reference 2:** Name: Dr Bruce Anderson
Company: Sasol Technology (Pty) Ltd
Work phone number: 00 27 16 960 4629
Cell number: 00 27 72 118 7441
Email address: Bruce.anderson@sasol.com
Relationship: Technical Expert: Materials Science Group
- Reference 3:** Name: Prof. Herman Alberts
Company: University of Johannesburg
Work phone number: 00 27 11 559 2330/ 00 27 11 559 2327
Email address: hermana@uj.ac.za
Relationship: PhD supervisor