



Curriculum Vitae Europass

Informații personale

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Educație și formare

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Calificarea/diploma obținută Specializare

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Perioada 1996 - 2003

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Perioada 1997

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Numele și tipul instituției de învățământ/furnizorului de formare Universitatea București

Perioada 1986 - 1991

Calificarea/diploma obținută Licență

Disciplinele principale studiate/competențele profesionale dobândite Direcția de specializare: Optică, Spectroscopie, Plasmă, Laseri

Numele și tipul instituției de învățământ/furnizorului de formare Universitatea de Vest din Timișoara, Facultatea de Fizică

Perioada 1981 - 1985

Calificarea/diploma obținută Bacalaureat

Numele și tipul instituției de învățământ/furnizorului de formare Liceul de Matematică – Fizică Nr. 1, Timișoara

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Numele și adresa angajatorului	Universitatea de Vest din Timișoara, Facultatea de Fizică																														
Perioada	1998 - 2004																														
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Numele și adresa angajatorului	Universitatea de Vest din Timișoara, Facultatea de Fizică																														
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Numele și adresa angajatorului	Universitatea de Vest din Timișoara, Facultatea de Fizică																														
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Numele și adresa angajatorului	Universitatea de Vest din Timișoara, Facultatea de Fizică																														
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Informații suplimentare	2006 - Premiul „Dragomir Hurmuzescu” al Academiei Române																														
Anexe	Lista lucrărilor științifice																														

Timișoara, 04.04.2022

Conf. univ. dr. CĂLIN AVRAM



Cărți și capitole de cărți

1. „Exchange charge model of crystal field for 3d ions,, in „Optical Properties of 3d Ions in Crystals. Spectroscopy and Crystal Field Analysis” M.G. Brik, N.M. Avram and C.N. Avram, Tsinghua University Press, Springer –Verlag, Heidelberg, 2013;
2. “Jahn-Teller effect for 3d ions (orbital triplets in a cubic crystal field), in “The Jahn-Teller Effect” M.G. Brik, N.M. Avram, C.N. Avram, Springer-Verlag, Heidelberg, 2009;
3. “Elemente de fizică cuantică”, Gh. Drăgănescu, C. N. Avram, Ed. „Politehnica”, Timișoara, 1998;
4. “Fizica mediului” vol. I, II, A.M. Balint, C. N. Avram Ed. „Mirton”, Timișoara, 1999-2000;
5. “Nivelele energetice ale ionilor în cristale”, N. M. Avram, C. N. Avram, Ed. „Mirton”, Timișoara, 2001;
6. “Laserul vibronic $\text{LiCaAlF}_6\text{:Cr}^{3+}$ ”, C. N. Avram Ed. „Mirton”, Timișoara, 2004.

Articole ISI

1. Chernyshev VA, Avram CN. Structural properties of MeF_2 (Me=Ca, Sr, Ba) crystals doped with rare-earth ions $\text{RE}^{3+}/\text{RE}^{2+}$: ab initio route. *Opt Mater.* 2021 Aug; DOI: 10.1016/j.optmat.2021.111244
2. E.-L. A. Eftimie, C. N. Avram, M. G. Brik, V. A. Chernyshev, and N. M. Avram, “Ab initio analysis of the optical spectra and EPR parameters of Ni^{2+} ions in CaF_2 and CdF_2 crystals,” *J. Lumines.*, vol. 214, p. 116577, Oct. 2019, doi: 10.1016/j.jlumin.2019.116577.
3. Eftimie E-LA, Avram CN, Brik MG, Avram NM. Optical absorption spectra and g factor of MgO: Mn^{2+} explored by ab initio and semi empirical methods. *J Phys Chem Solids* 2018; **113**: 194–200. <https://doi.org/10.1016/j.jpcs.2017.10.033>
4. A. M. Barb, A. S. Gruia, and C. N. Avram, "Optical Energy Levels Scheme for Co^{2+} doped in K(Mg,Zn)F_3 Fluoroperovskites," *Physica B: Condensed Matter* **482**, 2016 24–27. <http://dx.doi.org/10.1016/j.physb.2015.11.011>
5. N. M. Avram, C. N. Avram, E.-L. Andreici, and A. M. Barb, "Jahn-Teller effect in $4\text{T}_2\text{g}$ excited state of $\text{Mn}^{2+}\text{:MgO}$," *Chemical Physics* **460**, 2015 26–30. <http://dx.doi.org/10.1016/j.chemphys.2015.05.008>
6. C. N. Avram, A. S. Gruia, M. G. Brik, and A. M. Barb, "Calculations of the electronic levels, spin-Hamiltonian parameters and vibrational spectra for the CrCl_3 layered crystals," *Physica B: Condensed Matter* **478**, 2015 31–35 <http://dx.doi.org/10.1016/j.physb.2015.08.025>
7. M. G. Brik, A. S. Gruia, C. N. Avram, E.-L. Andreici, and N. M. Avram, "First principles and crystal field calculations of the spectral, structural and electric properties of (Na, Li) VSi_2O_6 clinopyroxenes crystals," *Physica Scripta* 2014 **T162**: 014021 <http://dx.doi.org/10.1088/0031-8949/2014/T162/014021>
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- VO(II) ion in mixed alkali cadmium phosphate glasses. *Optoelectronics and Advanced Materials-Rapid Communications* 2014; **8**: 608–611.
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 10. Birdeanu M, Birdeanu A-V, Gruia AS, Fagadar-Cosma E, Avram CN. Synthesis and characterization of $Zn_3Ta_2O_8$ nanomaterials by hydrothermal method. *Journal of Alloys and Compounds* 2013; **573**: 53–57. <https://doi.org/10.1016/j.jallcom.2013.03.274>
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