

Publications

Article

Residual stress on ettringite crystals in mature Type K shrinkage-compensating cement pastes

Valeri S. Harutyunyan, Ashot P. Aivazyan, Vahram P. Mkrtchyan, Paulo J.M. Monteiro,

Ana Paula Kirchheim, Sebastian Prinz

Construction and Building Materials 2023 132892

Article

XRD and combined SEM-EDS analysis of long-term hydration products of ye'elimite

Valeri S. Harutyunyan

Materials Chemistry and Physics 2022 125373

Article

Analysis of hydration products, hydration degree, and CO₂ capture in “ye'elimite -H₂O” system by X-ray diffraction, combined SEM-EDS, and FTIR techniques

Valeri S. Harutyunyan

Journal of the Taiwan Institute of Chemical Engineers 2022 104222

Article

Electro Spark Synthesis of α -WC Powder and Study of Its Phase Transformations upon Annealing

V. S. Harutyunyan, L. A. Petrosyan, A. V. Aganyan, A. N. Avagyan, A. K. Kostanyan, S. G. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 382–388

Article

The Madelung constant and bonding angle as “sensors” of the high-pressure induced amorphization and first-order isostructural phase transition in Mg(OH)₂ and Ca(OH)₂

Valeri S. Harutyunyan

JOURNAL OF SOLID STATE CHEMISTRY 2021 121993(10pages)

Manual

Պինդ մարմնի ֆիզիկայի լաբորատոր աշխատանքներ. մաս 2

Արթուր Կիրակոսյան, Արշակ Վարդանյան, Աննա Ասատրյան, Արամ Մանասեյան,

Վալերի Հարությունյան

2021 190

Article

Anomalous behavior of the Madelung constant and I-Fe-I bonding angle at high-pressure induced structural phase transition of FeI₂

V.S. Harutyunyan

Materials Chemistry and Physics 2020 122315(1-9)

Article

Analytic dependence of the Madelung constant on lattice parameters for 2D and 3D metal diiodides (MI2) with CdI2 (2H polytype) layered structure

V S Harutyunyan

Materials Research Express 2020 026301(1-11)

Article

Determination of the complete set of optical parameters of micron-sized polycrystalline CH₃NH₃PbI₃-xCl_x films from the oscillating transmittance and reflectance spectra

Gevorkian Zhyrair, Matevosyan Lenrik, Avjyan Karapet, Harutyunyan Valeri, Aleksanyan Eduard,

Manukyan Khachatur

Materials Research Express 2020 016408(1-7)

Article

Correlation of the Madelung constant and I—M—I bonding angle with cohesive energy contributions in layered metal diiodides (MI2) with CdI2 (2H polytype) structure

Valeri S. Harutyunyan

Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials 2020 1045 - 1054

Article

Residual stress on ettringite crystals in expansive cement paste

V.S.Harutyunyan, A.P.Aivazyan, V.P.Mkrtchyan

Proceedings of the YSU A. Physical and Mathematical Sciences 2017 105-108

<http://www.ysu.am/science/en/journals>

Article

Stress field of a near-surface basal screw dislocation in elastically anisotropic hexagonal crystals

Valeri S. Harutyunyan, Ashot P. Aivazyan, Andrey N. Avagyan

AIMS Materials Science 2017 1202-1219

<http://www.aimspress.com/article/10.3934/matricsci.2017.6.1202>

Article

Application of Ca(OH)₂ - Comprising Dispersions in CO₂ Capture and Sequestration Technologies

Valeri S.Harutyunyan, Ashot P.Aivazyan

Recent Patents on Materials Science 2015 2-14

<http://benthamscience.com/journals/recent-patents-on-materials-science/>

Article

X-ray Diffraction Investigations of Microstructure of calcium Hydroxide Crystallites in the Interfacial Transition Zone of Concrete

Valeri S.Harutyunyan, Vahram P.Mkrtchyan, Minas K.Balyan, Ashot P.Aivazyan, Eduard S. Abovyan,

Paulo J.M.Monteiro

Journal of the American Ceramic Society 2003 2162-2166

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1551-2916](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1551-2916)

Article

Micro strain distribution in calcium hydroxide present in the interfacial transition zone

V.S.Harutyunyan, V.P.Mkrtchyan, M.K.Balyan, E.S.Abovyan, P.J.M.Monteyro

Conference

Strain relaxation in AlN–sapphire (0001) heterostructure

V.S. Harutyunyan, E.R. Weber

Conference

Study of microstructural peculiarities and deformation state of ettringite crystals in Type K cement pastes by FTIR spectroscopy, optical microscopy, combined SEM-EDS, and XRD techniques

V.S. Harutyunyan, A.P. Aivazyan, P.J.M. Monteiro, A.P. Kirchheim, V.P. Mkrtchyan
