



Universitatea
Transilvania
din Braşov

ADMITERE DOCTORAT 2020-2021

Sesiunea Septembrie 2020

Şcoala Doctorală Interdisciplinară
(SDI)

Domeniul de doctorat:

Ingineria materialelor

Conducător doctorat:

Conf.dr.ing. Balteş Liana Sanda

TEMA (TEMATICĂ) PENTRU CONCURS

TEMA : *Cercetări privind obţinerea materialelor ceramice cu proprietăţi fotocatalitice*

Conţinut / Principalele aspecte abordate

Cercetări privind materialele suport.

Obţinerea straturilor ceramice de acoperire cu diverse compoziţii.

Caracterizarea materialelor obţinute.

Bibliografie recomandată:

1. *Carter, B.C, Norton, G.M, Ceramic materials. Science and Engineering, Springer, ISBN e-Book: 978-1-4614-3523-5, 2013;*
2. *Li, Z., Zhao, M., Zeng, J., Peng, C., Wu, J., High-solar-reflectance building ceramic tiles based on titanite (CaTiSiO₅) glaze, Solar Energy, 153, 623-627, (2017);*
3. *McColm, J.I., Dictionary of Ceramic science and Engineering, Third Edition, Springer, ISBN e-Book: 978-94-007-0916-4, 2013;*
4. *Pisello, L.A., State of art on the development of cool coatings for buildings and cities, Solar Energy 144, 660-680, (2017);*
5. *Shackelford, J.F., Doremus, R.H., Ceramic and Glass Materials Structure, Properties and Processing, Springer, ISBN e-Book: 978-0-387-73362-3, 2008;*
6. *Schabbach, L.M., Marinoski, D.L., Güths, S., Bernardin, A.M., Fredel, M.C., Pigmented glazed ceramic roof tiles in Brazil: Thermal and optical properties related to solar reflectance index, Solar Energy, 159, 113-124, (2018).*

Note/Precondiţii / Obs: *Studii în Ingineria materialelor, Inginerie industrială, Ingineria mediului, Inginerie mecanică, Fizică, Chimie.*

Conducător doctorat:

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Transilvania
University
of Brasov

ADMISSION TO DOCTORAL STUDIES

2020-2021

Session September 2020

Interdisciplinary Doctoral School
(SDI)

Field of doctoral studies:
Materials Engineering
PhD supervisor:
Assoc.prof. Balteş Liana Sanda

TOPIC FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC: *Research on obtaining ceramic materials with photocatalytic properties*

Content / Main aspects to be considered

Research on the base materials.
Obtaining the ceramic coatings with various compositions.
Characterization of the obtained materials.

Recommended bibliografy:

1. *Carter, B.C, Norton, G.M, Ceramic materials. Science and Engineering, Springer, ISBN e-Book: 978-1-4614-3523-5, 2013;*
2. *Li, Z., Zhao, M., Zeng, J., Peng, C., Wu, J., High-solar-reflectance building ceramic tiles based on titanite (CaTiSiO₅) glaze, Solar Energy, 153, 623-627, (2017);*
3. *McColm, J.I., Dictionary of Ceramic science and Engineering, Third Edition, Springer, ISBN e-Book: 978-94-007-0916-4, 2013;*
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6. *Schabbach, L.M., Marinoski, D.L., Güths, S., Bernardin, A.M., Fredel, M.C., Pigmented glazed ceramic roof tiles in Brazil: Thermal and optical properties related to solar reflectance index, Solar Energy, 159, 113-124, (2018).*

Prerequisites/Remarks: Studies in Materials Engineering, Industrial Engineering, Environmental Engineering, Mechanical Engineering, Physics, Chemistry.

PhD supervisor:

Assoc.prof. Balteş Liana Sanda