



**Centro de
Investigación en
Corrosión**

San Francisco de Campeche, Cam., a 20 de junio 2020

**Dr. Javier Reyes
Presidente del Comité Académico
Maestría en Ciencias de la Preservación de Materiales
CICORR-UAC**

Curriculum Vitae de dr. Orest Bilyy (2015-2019 años)

No CV único CONACYT	806761
Nivel SNI	Desde el 1 de enero de 2018 se le ha asignado el nivel 1 del SNI (No. de Expediente 74832) durante el periodo del 1 de enero de 2018 al 31 de diciembre de 2020
Perfil PRODEP	el perfil deseable para profesores de tiempo completo. La acreditación tiene validez por 3 años a partir de julio 2018.
Fecha de inicio de actividades en la institución	4 de octubre de 2016
Fecha de incorporación a la MCPM	4 de octubre de 2016
Nombre del Cuerpo Académico	UNACAM-CA-10 CIENCIA E INGENIERIA DE CORROSION
Linea de investigación	CORROSION Y PROTECCION

Dirección de tesis de licenciatura y posgrado

La tesis "Evaluación del efecto de campo magnético en el proceso de fusión de soldaduras en acero duplex 2205 en la resistencia al agrietamiento por corrosión fatiga" presentada por el ing. **Cristian Alejandro de Leon Gómez** para obtener el grado de Maestro de Ciencias.

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Publicaciones en revistas indexadas, arbitradas, , y memorias en extenso.

Revistas indexadas:

- 1.1 **Bilyi O.L.** Evaluation of the durability of a pipeline weakened by internal defect in the process of transportation of hydrogen-containing // Materials Science, Vol. 51, No. 4, January, 2016.- P. 486-491.
- 1.2 Acuña Gonzales N.A., **Bilyi O.L.**, and González Sánchez J. A. Monitoring of the critical length of cracklike defects in the bone-cement plate with regard for their different geometry // Materials Science, Vol. 53, No. 1, July, 2017.- P. 116-122.
- 1.3 **Bilyy O.L.**, Alonzo-Medina G.M., González-Sánchez J., Acuña Gonzalez A. Assessment of Durability of Bone Cement Plates with Defects of Elliptic Shape: Effect of Configuration and Location of Defects, // Materials Science – September 2018, Volume 54, Issue 2, pp. 184-193. DOI: <https://doi.org/10.1007/s11003-018-0172-5>.
- 1.4 González Sánchez J.A. , **Bilyy O.L.**, Yukhym R.Ya. Evaluation of the Strength of Limestone After Long-Term Weathering Under Natural Conditions, // Materials Science – January 2018, Volume 53, Issue 4, pp 560-568. DOI: <https://doi.org/10.1007/s11003-018-0109-z>.
- 1.5 Calan Canche D., García Hernández R., Dzib Perez L., **Bilyy O.**, Gonzalez-Sanchez J. Susceptibility to the Absorption of Atomic Hydrogen in API 5L X60 Steels with Unconventional Heat Treatment // Materials Science 54 (2019) pp. 573-581. [10.1007/s11003-019-00220-3](https://doi.org/10.1007/s11003-019-00220-3)
- 1.6 **León Gómez C.A.**, Conzalez-Sanchez J., **Bilyy O.** Effect of the application of an external magnetic field during the process of fusing welding in stainless steel duplex 2205 in the resistance to cracking by corrosion fatigue // Procedia Structural Integrity 16 (2019) pp. 265-272. [10.1016/j.prostr.2019.07.051](https://doi.org/10.1016/j.prostr.2019.07.051)

Revistas arbitradas:

- 1.7 Polishchuk L., **Bilyy O.**, Kharchenko Y. Life time assessment of clamp-forming machine boom durability // Diagnostyka Vol. 16, № 4. – 2015. – P. 71-76.
- 1.8 **Bilyy O.L.** Assessment of danger of cracks forming various form in a spherical structural element // The scientific bulletin of Kherson state maritime academy. – Kherson. – T. 12, № 1. – 2015. – P. 174–179. (in Ukrainian)
- 1.9 Gonzalez Sanchez J.A., **Bilyy O.**, lukhym R. Application of epoxy mortar and polyester resin as injection material for restoration calcareous stone of historical buildings //



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- Scientific notes. Journal of Lutsk National Technical University. – Volume. № 56. – Lutsk – 2016. – P. 40–46.
- 1.10 Polishchuk L., **Bilyy O.**, Kharchenko Ye. Prediction of the propagation of crack-like defects in profile elements of the boom of stack discharge conveyor // Eastern-European Journal of Enterprise Technologies Vol. 84, № 6. – 2016. – P. 44-52.
 - 1.11 Dmytrakh I. M., Sirotyuk A. M., **Bilii O. L.**, Barna R. A., Lutitskii O. L. Expert system for monitoring the technical state and assessment of the risk of failure of ground sections of gas-pipelines in long-term exploitation // . Technical diagnostic and non-destructive testing. – № 4. – 2016. – P. 27–33. (in Ukrainian)
 - 1.12 González-Sánchez J.A., Ruvalcaba-Sil J.L., **Bilyy O.**, Dzib-Pérez L.R. Determination of subsurface hydrogen content in the api X52 and api X65 pipeline carbon steels // Physical Chemical Mechanics of Materials. – Special issue № 11. – 2016. – P. 301–306.
 - 1.13 **Bilyy O.**, González-Sánchez J., Dzib-Pérez L., **Rosado Carrasco J.**, Canto G. To assessment of defects developments of welded joints stainless Steel Duplex 2205 // – Physicochemical Mechanics of Materials, special issue №12 – 2018 – P. 14-19.

Memorias en extenso:

- 1.14 Dmytrakh I. M., Sirotyuk A. M., **Bilyy O. L.**, Barna R. A., Lutytskyi O. L. Development of expert system for technical state monitoring and evaluation of fracture risk for land-based pipelines section of long-term exploitation. Collection of scientific reports of Target Complex Program of Research of NASU „Surface life and safety of structures, buildings and machinery”. 2015. – C. 129–138. (in Ukrainian)
- 1.15 **Bilyy O.**, Gonzalez-Sanchez J., Iukhym R. Assessment of structural elements with crack-like defects // Proceeding of the 4th International Conference “In-Service Damage of Materials, its Diagnostics and Prediction”. – Ternopil Ivan Pulu’uj National Technical University. – Ternopil. - 2015. – P. 141–144.
- 1.16 Dmytrakh I. M., Stashchuk M. H., Sirotyuk A. M., **Bilyy O. L.**, Dorosh M. I. Criteria of structural steels strength and working capacity in hydrogen environment with the account of their hydrogenation near defects–stress concentrators. Collection of scientific reports of Target Complex Program of Research of NASU „Hydrogen in Alternative Energetic and New Technologies” – Kyiv – 2015. – P. 287-303. (in Ukrainian)
- 1.17 **Bilyy O.L.** Determination characteristics of crack criterion spherical defects in structural elements // Modern power plants in transport and technologies and maintenance equipment – Materials 6th International scientific and practical



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- conference. – Kherson State Maritime Academy – Kherson. - 2015. – P. 172–173. (in Ukrainian)
- 1.18 **Bilyy O.**, Alonzo Medina G.M. Method for the assessment of the serviceability and fracture hazard for pipes with cracklike defects / O. // Materials VIIIth Conference of young scientists “Welding and Related Technologies”. – Kyiv: Paton Electric Welding Institute of NAS of Ukraine, - 2015. – P. 82.
 - 1.19 **Bilyy O.** Assessment of danger due to cracks in structural elements of different shapes and geometry // Proceedings of the 17th International Conference on New Trends in Fatigue and Fracture, 25-27 October 2017, Cancún, Quintana Roo, Mexico. P. 181-187.
 - 1.20 **Sánchez Cruz T.**, González-Sánchez J., **Bilyy O.**, Jaureguizar S., López Morelos V.H., Granados Becerra H. Fracture behavior of dissimilar welding of Inconel 600 // 6 th International Conference “Fracture Mechanics of Materials and Structural Integrity” Book of abstracts. Lviv, Ukraine. 3-6 June 2019. P. 113-114.
 - 1.21 **León Gómez C.A.**, Conzalez-Sanchez J., **Bilyy O.** Effect of the application of an external magnetic field during the process of fusing welding in stainless steel duplex 2205 in the resistance to cracking by corrosion fatigue // 6 th International Conference “Fracture Mechanics of Materials and Structural Integrity” Book of abstracts. Lviv, Ukraine. 3-6 June 2019. P. 124.

Presentaciones en congresos con participación de estudiantes del posgrado, indicando su nivel de participación

- 2.1 **Rosado Carrasco J.**, **Bilyy O.**, González Sánchez J., García Rentería M., López-Morelos V. Localized Corrosion resistance of Duplex Stainless Steel 2205 welded by GMAW under the influence of a Magnetic Field// 9th International Conference of Young Scientists on Welding and Related Technologies, 23-26 May, 2017 Kyiv, Ukraine.
- 2.2 **Bilyy O.**, González-Sánchez J., Dzib-Pérez L., **Rosado Carrasco J.**, Canto G. To assessment of defects developments of welded joints stainless Steel Duplex 2205 // XIV International Conference "Problems of corrosion and corrosion protection of structural materials" (Corrosion-2018), Lviv, Ukraine. 5-7 June 2018.
- 2.3 Calan-Canche J.D., Hernández R.G., González-Sánchez J.A, Dzib Pérez L.R., **Tun Serrano M.A.**, **Bilyy O.** Electrochemical characterization and susceptibility to hydrogen absorption in API 5L X60 Steel with and without unconventional heat treatment // XXVII International Materials Research Congress, Cancun, Mexico, 19-24 August 2018.



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- 2.4 **Sánchez Cruz T.**, González-Sánchez J., **Bilyy O.**, Jaureguizar S., López Morelos V.H., Granados Becerra H. Fracture behavior of dissimilar welding of Inconel 600 // 6 th International Conference “Fracture Mechanics of Materials and Structural Integrity” Lviv, Ukraine. 3-6 June 2019.
- 2.5 **León Gómez C.A.**, Conzalez-Sanchez J., **Bilyy O.** Effect of the application of an external magnetic field during the process of fusing welding in stainless steel duplex 2205 in the resistance to cracking by corrosion fatigue // 6 th International Conference “Fracture Mechanics of Materials and Structural Integrity” Lviv, Ukraine. 3-6 June 2019.
- 2.6 **Leon Gomez C.A.**, González-Sánchez J.A., **Bilyy O.** Effect of the application of an external magnetic field during the process of fusing welding in stainless steel duplex 2205 in the resistance to cracking by corrosion fatigue Corrosion and Metallurgy // Symposium at the XXVIII International Materials Research Congress held in Cancun, Mexico from August 18th to 23th, 2019.

Proyectos de Investigación con financiamiento externo e interno

Nombre del proyecto	Desarrollo de métodos de evaluación de la corrosión por picaduras e iniciación de grietas en tuberías con costura
Años de inicio y finiquito del proyecto:	2017-2018
Tipo y nombre de la fuente de financiamiento	Financiamiento Externo
Institución Responsable	Universidad Autónoma de Campeche
Investigador Responsable por parte de la UAC	Dr. Orest Bilyy
Dependencia académica	CICORR
Estudiantes participantes en el proyecto:	Juliana Guadalupe Rosado Carrasco
Clave de registro DGEPI	068/UAC/2017

Atentamente.

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Profesor e investigador del CICORR

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