

# Curriculum Vitae

**Elarbi Khalil, Ph.D**

Professor

Department of Materials & Metallurgical Engineering  
University of Tripoli, Tripoli, Libya

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**1. Name:** Elarbi O. Khalil

**2. Date of Birth:** 1.1.1955

**3. Present Position:** Faculty member,  
Department of Materials & Metallurgical Engineering,  
University of Tripoli

## 4. Education:

- **B Sc** (Engg.) University of Tripoli, 1979, Tripoli-Libya.
- English language training, Centre for continuing education, University of British Columbia, UBC, 1983, Vancouver, B.C., Canada.
- **M Sc** (Metallurgical Engg.) Queen's University, 1986, Kingston, Ontario, ONT., Canada
- **Ph D** (physical metallurgy) University of Chemical Technology, 1998, Prague, Czech Republic

**5. Major Fields:** Electrochemical corrosion testing, Industrial Corrosion, Failure analysis and prevention, Materials selection & engineering alloys  
Non-destructive testing and Quality control

## 6. Consultation & other related experience

- 2009 - 2010** Zueitina oil company, corrosion engineer, follow-up, corrosion management, inspection, monitoring, review of inline inspection, Recruiting, Design of CP system for new constructed pipelines field surveys of corrosion condition assessments.
- 2001 - 2006** Consultant, Great man made river project (GMMR)  
Inspection of corroding systems: Flow control valves, Riser pipes, Well head joints. Cathodic protection monitoring,  
Cathodic protection Criteria for pre-stressed concrete pipe (PCCP)
- 2002 - 2007** Zueitina oil company, corrosion engineer, cathodic protection , review of tank Non-destructive testing data and online inspection data. Recruiting, analysis & estimation of remaining life of old pipelines
- 1988 - 1993:** **Consultant**, general electricity company of Libya (GECOL),

Tripoli, Libya, inspection and corrosion control, Inspection of turbine blades during shut down and overhaul. Evaluation of concrete foundation for power transmission lines. Evaluation of sacrificial anodes installed on condenser water boxes. Failure analysis of overhead 220 kV, ACSR transmission lines. Failure analysis of heating chamber of gas turbine. Corrosion failure analysis of boiler tubes. Diesel engines inspection in southern part of Libya. Tender evaluation for the construction of new steam and gas power station.

#### **7 . Proficiency in English:**

The nominee has under taken a complete package of an English language training (including College preparation course) at the Center for Continuing Education, at the University of British Columbia, in Vancouver, B.C., Canada. He has also completed his M.Sc. degree at Queen's University, in Kingston, Ont. Canada.

#### **8. Areas of experience:**

1. Light and electron microscopy (SEM)
2. Metallographic techniques for specimen preparation.
3. NDT inspection.
4. Mechanical testing.
5. X-ray diffraction analysis.
6. Electrochemical measurement and inspection of corroding systems. Well acquainted with modern computer interfaced measurement systems such as GAMRY CMS 100 and EG&G system, in addition to experience on standard wenking type potentiostat. Acquainted with common operating systems ( MS Dos and Windows) in addition to experience with spread sheets such as Excell program, MS Word, Quatro Pro, Reference Manager, and Grapher.

#### **9. Referees:**

1. Dr. Pavel Novak, Institute of Chemical Technology, Technicka 5, VSCHT, Ustav 106, Praha 6, Prague, Czech Republic. E-mail: met@vscht.cz, Tel/Fax: + 420 2 3117151
2. Dr. R.W. Smith, Department of Metallurgical Engineering, Queen's University, Kingston, Ont., Canada.
3. Dr. S. Faidi, UMIST, Corrosion & protection center, P.O. Box 88 Manchester, M60 1QD, U.K  
Tel: + 442074839046 Fax: 01612004865 E-mail: sefaidi@yahoo.co.uk

#### **10 . Publications:**

1. **Elarbi Khalil** "Metallurgical Instabilities of Superalloys at High Temperature Service" 1<sup>st</sup> National Seminar on Electric Energy, 12 -14 December 1992, Tripoli.
2. **Elarbi Khalil** and Khaled Abullah " Performance of Carbon Steel in fossil fueled Electric Power Stations" 1<sup>st</sup> International Symposium on Heat Exchangers & Boilers (Fabrication and safe Operation) HEB 93, Alexandria, June 23 -24, 1993

3. P. Novák, Elarbi Khalil, L. Joska "Influence of Heat Transfer on Pitting & Crevice Corrosion of Stainless Steel" 13<sup>th</sup> Australian Corrosion Congress, Melbourne, Nov. 19-21, 1996, P1103 – 1109
4. **Elarbi Khalil**, "Effect of Surface Temperature and heat flux on Localized Corrosion initiation on Stainless Steel," 4<sup>th</sup> Libyan Corrosion Society Conference, Dat- Elemad, Tripoli, 2004.
5. **A. Elbasir, E. Khalil, F. Aboudia, S. Mousa**, " Investigation & Remedies of Corrosion Problems of Copper Piping Systems in Tripoli Medical Centre" Libya for Applied & Technical Science, 2010, 1 (1), 8 - 11
6. **Elarbi Khalil**, "Effect of Surface Roughness of 316L Stainless Steel on Pitting Corrosion initiation and Repassivation", Journal of Engineering Research, Sept. 2011, (15) 1 - 10
7. **Elarbi Khalil**, "Stress Corrosion Resistance of Duplex Stainless Steel in Chloride-bearing Waters" Mansoura Journal of Chemistry, 2013 vol. 40 (1) 193 – 208
8. **Elarbi Khalil** and A. Elbasir "A Study on Economics and Estimation of Corrosion Cost" International Conference on Material Science and Engineering (ICMSE 2014), March 17-18, 2014, Chennai, India
9. **Elarbi Khalil**, "A premature Failure of a Super-heater Tubing in a Power utility Unit" **THERMAM 2014** ,International Conference on Thermophysical and Mechanical Properties of Advanced Materials 12-15 June 2014, Cesme - Izmir / Turkey
10. **Abudaia, F., Khalil, E.O., Esehiri, A., and Daw, Khawla** " Corrosion Resistance of Kolesterized Austenitic 304 Stainless Steels, 4<sup>th</sup> International congress on Advances in applied physics and Materials Science, AIP Publishing, 2015
11. **Elarbi Khalil, et al**, Thin Film of Benzene Deposited on 304L Stainless Steel using Pulsed Microwave Plasma Enhanced Chemical Vapor Deposition, Journal of Authority National Sci.,Res &Tech., 2017
12. **Elarbi Khalil** and Ali El-Basir, Impact of Corrosion Cost on National Electric Power Generation, Journal of Industrial Research Center, No. 31, (2019)
13. **Elarbi Khalil**, Role of Na-thiosulfate in pitting & repassivation behavior of 304 stainless steel in chloride-containing media, Journal of Engineering Research (University of Tripoli) Issue (28) September 2019, 31 - 40
14. **Elarbi Khalil**, Effect of operational parameters on continuous-current electrodeposition of Ni-Co alloys, Journal of Engineering Research (University of Tripoli) Issue (28) September 2019, 41 - 50
15. **Elarbi Khalil**, Testing of Acrylic Polyurethane-Coated Carbon Steel for Immersion Service Using Electrochemical Impedance Spectroscopy, International Journal of Science and Research, Volume 8 Issue 11, November 2019, 1959 - 1962

16. Einas Bin Sultan, khawla Areef, Manar Abazeid, Elarbi Khalil, Fathi M Sherif\*, Muftah Shushni, "*Assessment of the Protective Properties of Acokanthera oblongifolia Plant Extract on Mild Steel in Saline Solution*", **Recent Trends in Pharmaceutical Sciences & Research, Volume-2, Issue-2 (March-August, 2020)**

17. Malak Al-Hazel, Elarbi Khalil and \*Mahmud Treki, "*BIOADHESIVE BUCCAL FILMS FOR THE DELIVERY OF BENZOCAINE*" European Journal of Biomedical and Pharmaceutical Sciences, Volume: 8 Issue(1) 23-29 , 2020