

RESUME

TARIK BAYKARA

Birth : Denizli, Turkey, 1955
Status : Married
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EDUCATION AND ACADEMIC RECORDS

10/1994 - now : Associate Proffessorship : Tübitak-Marmara
Research Center, Gebze, Turkiye

03/1989 - 09/1990 : Post-Doc: Houston Advanced Research Center, the
Woodland,TX,USA and Rice University, Chemistry
Department, Houston,TX, USA

09/1984 - 12/1988 : PhD-Doctorate: Rice University, Mechanical
Engineering and Materials Science Department,
Houston,Tx, USA

07/1984 - 08/1984 : Fulbright Scholar: University of Texas at Austin,TX,
USA

06/1978 - 12/1980 : MSc: Middle East Technical University, Metallurgical
Engineering Department, Ankara, Turkey

09/1972 - 05/1978 : BS: Middle East Technical University, Metallurgical
Engineering Department, Ankara, Turkey

09/1966 - 05/1972 : High School (Licee): Denizli Lisesi, Denizli, Turkey

WORK EXPERIENCE

10/2000 – now : Director: Materials and Chemical Technologies
Research Institute, Tubitak- Marmara Research
Center, Gebze, Turkey

1/1996 – 9/2000 : Deputy Director: Materials and Chemical
Technologies Research Institute, Tubitak-Marmara
Research Center, Gebze,Turkey

08/1992 - 12/1995 : Head of the Department: Materials Research
Department, Tubitak-Marmara Research Center,
Gebze, Turkey

- 10/1990 - 07/1992** : Research Associate and Project Director: Tubitak-Marmara Research Center, Gebze, Turkey
- 05/1990 - 09/1990** : Research Associate: Rice University, Chemistry Department, Houston, TX, USA
- 03/1989 - 05/1990** : Research Associate: Houston Advanced Research Center, the Woodlands, TX, USA
- 09/1984 - 03/1989** : Research Assistant: Rice University, Mechanical Engineering and Materials Science Department, Houston, TX, USA
- 06/1980 - 06/1984** : Research Associate: Çukurova University, Mechanical Engineering Department, Adana, Turkey
- 06/1978 - 06/1980** : Teaching Assistant: Middle East Technical University, Metallurgical Engineering Department

Honors & Awards:

- 1. Rice University, Graduate Fellowship (1985)**
- 2. Fulbright Scholarship (1984)**
- 3. Middle East Technical University, Honor Student (1978)**
- 4. Tübitak-MRC 1996 Awards: "NATO-SFS: Advanced Ceramics Project"**
- 5. Tübitak-MRC 1998 Awards: "NATO-SFS: Advanced Powder Metallurgy Project"**

RESEARCH TOPICS AND FIELDS & AREAS OF INTERESTS

- Advanced materials science and technology: Processing, properties and performance of advanced metals, alloys; advanced ceramics; advanced composites**
- Powder metallurgy: Hardmetals, Powder Injection Molding, Metal matrix composites, processing and sintering routes**
- Advanced ceramics: Oxide and non-oxide ceramics; Processing, shaping, forming and sintering**

PUBLICATIONS

Assoc. Prof. Dr. Tarık Baykara has 4 books; 27 papers published in international journals in English; 22 papers published in national journals in Turkish; 24 presentations in international conferences & congresses in English; 41 presentations in national conferences & congresses in Turkish and 34 technical reports published in Turkish. His publication has been cited 47 times.

LIST OF PUBLICATION

1988

1. "Wetting and Penetration of KCl and NaCl Grain Boundaries by Water and Methanol", *Scripta Metallurgica*,22, 715,(1988)

OF CITATION: 2

1991

2. "Effects of Liquid Phases on Interfacial Sliding in Alkali Halide Crystals", *Acta Metallurgica*,39,6,(1991)

OF CITATION: 14

1993

3. "Synthesis of Functionally Gradient NiCr-Al/MgO-ZrO Coatings by Plasma Spray Technique" *Journal of Materials Science Letters*, 12, 1099, 1993

OF CITATION: 6

4. "*Synthesis of functionally gradient Ni-Cr-Al/MgO-ZrO coating by plasma spray technique*", *Proceedings of the 13th Int. Plansee Seminar*, Eds. H.Bildstein, R.Eck, *Metallwerk Plansee, Reutte (1993)*, Vol.3, pp.363

1994

5. "*Powder Metallurgy-Problems and Promises*" *Tr. J. of Engineering and Env. Sci.*,18 (1994) 101-111

6. "*Advanced Ceramic Research and Market in Turkey*" *British Ceramic Transactions*, vol.93, No.5 (1994) pp.202

7. "*From Lab to the Market: A Unique Turkish Experience*", *Interceram*,3(1994) p.156

8. "Preparation of metal alkoxides for sol-gel process" *Tr.J.of Eng.and Env.Sci.*,18 (1994) p:219-224

9. "NATO Project Introduces Advanced Ceramics in Turkey" *Am.Cer.Soc.Bulletin*, 4, 73 (1994) pp.38

10. "The effect of additives on microstructure and mechanical properties of commercial alumina ceramics", *Materials Characterization*, 33,(1994)329-41

11. "A Review of Containerless Thermophysical Property Measurements of Liquid Metals and Alloys" *High Temperature Science*,32 (1994) 113-54

OF CITATION: 4

1995

12. "*A colloidal method for manganese oxide addition to alumina powder and investigation of properties*", *Journal of Materials Science*, 30 (1995)4183-87

13."*The densification and microstructural development in alumina with manganese oxide addition*" *J. of European Ceramic Soc.*,15 (1995) 165-71

OF CITATION: 3

14. "Elektrokinetic behavior of metallurgical grade alumina powder" *J.Mat.Sci.Letters*, 14 (1995) 390-92

15. "The effect of MnO₂ and TiO₂ doping on the densification and microstructural development of alumina" *Proceedings of Ceramic Processing Science and Technology*, Vol.51 (1995) pp.525, International Conference, September 11-14, 1994, Friedrichshafen, Germany

16. "A new ceramic thread guide composition via low pressure injection molding" *Journal of Materials Processing*, 51 (1995)211-22

OF CITATION: 2

17. "Densification of Alumina at 1250 C with MnO₂ and TiO₂ Additives" *Ceramics International*, 21, 5, (1995) 345-348

OF CITATION: 2

1996

18. "Effect of additives on the densification and microstructural development of low-grade alumina powders" *Journal of Materials Processing Technology*, 62 (1996) 108-115

OF CITATION: 2

1997

19. "Development of foam ceramics as filters for molten aluminium metals and alloys" *Practical Metallography*, 34 (1997) 2 s.93-98

20. "Sintering Behavior of Sepiolite", *Ceramics International*, 23, 4 (1997)s:305

OF CITATION: 1

21. "Effects of powder mixing technique and W powder size on the tensile properties and microstructure of tungsten alloys" *Proceedings of the 14th International Plansee Seminar*, Eds.G.Kneringer, P.Radhammer, P.Wilhartitz, Plansee AG, Reutte (1997) Vol.1, pp.329

1998

22."Surface hardening of tungsten heavy alloys" *Scripta Materialia*, Vol.38, No.1, pp.131-36 (1998)

23."The effect of TiO₂ and MnO₂ on densification and microstructural development of alumina" *Ceramics International*, 24 (1998) 81-90

OF CITATION: 10

BOOK (TURKISH): "İleri Malzemeler: Ulusal Bilim ve Teknoloji Politikaları İçin Değerlendirmeler", Tübitak-MAM Yayını, Haziran 1998, Gebze, Kocaeli ("Advanced Materials: Assessment for National Science and Technology Policies" , Tubitak-MRC Publication, June 1998, Gebze-Kocaeli-Turkey)

1999

BOOK (TURKISH):"Tübitak-MAM:Malzeme Bilim ve Teknolojileri Araştırmaları:Dönemsel Gelişim, Değerlendirmeler ve Geleceği"Tübitak-MAM

Yayını, Mayıs 1999, Gebze-Kocaeli (“Tubitak-MRC: Research in Materials Science and Technologies: Historical Development, Evaluation and Futures”
Tubitak-MRC Publication, May 1999, Gebze-Kocaeli-Turkey)

2000

24. *“Silicon Carbide and Alumina Composite Ceramics for Ceramic Foam Filters”* H.Erkalfa, T.Baykara, O.T.Özkan, *Interceram*, vol.49, No.3, 2000 pp. 170-173

25. *“Effects of powder mixing technique and tungsten powder size on the properties of tungsten veavy alloys”* *J Mater Process Tech* 103, (2):288-292, June 15 (2000)

2001

26. *“Characteristic Features and Mineralogical Structure of Diatomite From Ankara Region of Turkey”* R.Goren, T.Baykara, M.Marsoglu, *British Ceramic Transactions*, vol 100, No. 5, 2001, pp.237-239

OF CITATION: 1

2002

BOOK (bilingual TURKISH-ENGLISH): “Kritek 2001:Kritik Teknolojiler Sempozyumu” *Bildiriler Kitabı, Tübitak-MAM, 2002 (Editör) (“Critech 2001: Critical Technologies Symposium”* *Proceedings, Tubitak-MRC, 2002 (Chief Editor)*)

27. *“A study on the purification of diatomite in hydrochloric acid”* R.Gören, T.Baykara, M.Marşoğlu, *Scandinavian Journal of Metallurgy* 2002; 31:115-119

28. *“Effects of purification and heat treatment on pore structure and composition of diatomite”* R. Gören, T.Baykara, M.Marşoğlu, *British Ceramic Transactions* (2002) vol 101 no 4 177-180