List of Publications
Professor Angelos M Efstathiou

I. Articles in Peer-Reviewed Journals

1989

1. A.M. **Efstathiou**, C.O. Bennett, "Surface Species on Rh/Al_2O_3 during CO/H_2 Reaction Studied by Transient Techniques", *Chem. Eng. Comm.* 83 (**1989**) 129-146.
DOI: 10.1080/00986448908940658

2. A.M. **Efstathiou**, C.O. Bennett, "The CO/H_2 Reaction on Rh/Al_2O_3. I. Steady-State and Transient Kinetics", *J. Catal.* 120 (**1989**) 118-136.
DOI: 10.1016/0021-9517(89)90255-8

3. A.M. **Efstathiou**, C.O. Bennett, "The CO/H_2 Reaction on Rh/Al_2O_3. II. Kinetic Study by Transient Isotopic Methods", *J. Catal.* 120 (**1989**) 137-156.
DOI: 10.1016/0021-9517(89)90256-X

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4. A.M. **Efstathiou**, S.L. Suib, C.O. Bennett, "Encapsulation of Molecular Hydrogen in Zeolites at One Atmosphere", *J. Catal.* 123 (**1990**) 456-462.
DOI: 10.1016/0021-9517(90)90142-7

5. A.M. **Efstathiou**, C.O. Bennett, "Enthalpy and Entropy of H_2 Adsorption on Rh/Al_2O_3 Measured by Temperature-Programmed Desorption", *J. Catal.* 124 (**1990**) 116-126.
DOI: 10.1016/0021-9517(90)90108-V

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6. A.M. **Efstathiou***, "The CO/H_2 Reaction on Rh/MgO Studied by Transient Isotopic Methods", *J. Mol. Catal.* 67 (**1991**) 229-249.
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7. A.M. **Efstathiou***, "Temperature-Programmed Desorption (TPD), Reaction (TPR) and Oxidation (TPO) of Species Formed on Rh/MgO After Interaction with H_2 and CO", *J. Mol. Catal.* 69 (**1991**) 41-60.
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8. A.M. **Efstathiou***, "The C_2H_4/He Reaction on Rh/MgO Studied by Transient Methods", *J. Mol. Catal.* 69 (**1991**) 105-116.
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9. A.M. **Efstathiou**, S.L. Suib, C.O. Bennett, "Transient Diffusion, Sorption and Desorption of Cyclopropane in NaX Zeolite", *J. Catal.* 131 (**1991**) 94-103.
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10. A.M. **Efstathiou**, S.L. Suib, C.O. Bennett, "Transient Diffusion, Desorption and Reaction Studies of Cyclopropane and Propylene with NaX and Eu/NaX Zeolites", *J. Catal.* 135 (**1992**) 223-235.
DOI: 10.1016/0021-9517(92)90281-L

11. A.M. **Efstathiou**, S.L. Suib, C.O. Bennett, "Transient Sorption and Desorption Studies of Cyclopropane and Propylene with Cs/NaX and Ni/NaX Zeolites", *J. Catal.* 135 (**1992**) 236-245.
DOI: 10.1016/0021-9517(92)90282-M

12. A.M. **Efstathiou**, E. Borgstedt, S.L. Suib, C.O. Bennett, "Encapsulation of Molecular Hydrogen in Ion-Exchanged A Zeolites at 1 Atm", *J. Catal.* 135 (**1992**) 135-146.
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13. M.W. Simon, A.M. **Efstathiou**, C.O. Bennett, S.L. Suib, "Cyclopropane Isomerization over Eu/NaX Zeolites", *J. Catal.* 138 (**1992**) 1-11.
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14. A.M. **Efstathiou**, D. Boudouvas, N. Vamvouka, X.E. Verykios, "Kinetics of Methane Oxidative Coupling on Zinc-Doped Titanium Oxide", *Appl. Catal. A: Gen.* 92 (**1992**) 1-15.
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15. A.M. **Efstathiou**, T. Chafik, D. Bianchi, C.O. Bennett, "In Situ Determination of Surface Carbon Species Formed on Rh/Al_2O_3 During CO/H_2 Reaction by Using Various Transient and Isotopic Methods", *Stud. Surf. Sci. Catal.* 75 (**1993**) 1563-1566.
DOI: 10.1016/S0167-2991(08)64480-8

16. H. Halafi, E. Borgstedt, A.M. **Efstathiou**, S.L. Suib, D. Bianchi, "Hydrogen Surface Concentration Effect on the Temperature-Programmed Hydrogenation of Adsorbed Carbonaceous Species on an Fe/Al_2O_3 Catalyst", *Stud. Surf. Sci. Catal.* 75 (**1993**) 2499-2502.
DOI: 10.1016/S0167-2991(08)64334-7

17. P. Szedlacsek, A.M. **Efstathiou**, C.O. Bennett, S.L. Suib, "Adsorption Study by Transient Methods. Theory and Modeling", *Stud. Surf. Sci. Catal.* 75 (**1993**) 1559-1562.
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18. A.M. **Efstathiou**, D. Boudouvas, N. Vamvouka, X.E. Verykios, "Kinetics of Methane Oxidative Coupling on Li^+-Doped TiO_2 Catalysts", *J. Catal.* 140 (**1993**) 1-15.
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20. A.M. **Efstathiou**, D. Papageorgiou, X.E. Verykios, "Transient Kinetic Study of the Reaction of CH_4 and C_2H_6 with the Lattice Oxygen of Li^+-Doped TiO_2 Catalyst", *J. Catal.* 141 (**1993**) 612-627.
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21. A.M. **Efstathiou**, D. Papageorgiou, X.E. Verykios, "The Role of Lattice Oxygen During the Oxidative Coupling of Methane over Li^+-Doped TiO_2 Catalysts", *J. Catal.* 144 (**1993**) 352-357.
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22. A.M. **Efstathiou**, T. Chafik, D. Bianchi, C.O. Bennett, "CO Chemisorption and Hydrogenation of Surface Carbon Species Formed After CO/He Reaction on Rh/MgO: A Transient Kinetic Study Using FTIR and Mass Spectroscopy", *J. Catal.* 147 (**1994**) 24-37.
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23. D. Papageorgiou, A.M. **Efstathiou**, X.E. Verykios, "Transient Kinetic Study of the Reaction of C_2H_4 and C_2H_6 with the Lattice and Adsorbed Oxygen Species of Li^+-Doped TiO_2 Catalysts", *J. Catal.* 147 (**1994**) 279-293.
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24. D. Papageorgiou, A.M. **Efstathiou**, X.E. Verykios, "The Selective Oxidation of Methane to C_2-Hydrocarbons over Lithium-Doped TiO_2 Catalysts", *Appl. Catal. A: Gen.* 111 (**1994**) 41-62.
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25. A.M. **Efstathiou**, T. Chafik, D. Bianchi, C.O. Bennett, "A Transient Kinetic Study of the CO/H_2 Reaction on Rh/Al_2O_3 Using FTIR and Mass Spectrometry", *J. Catal.* 148 (**1994**) 224-239.
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28. V. Tsipouriari, A.M. **Efstathiou**, Z.L. Zhang, X.E. Verykios, "Reforming of Methane with Carbon Dioxide to Synthesis Gas over Supported Rh Catalysts", *Catal. Today* 21 (**1994**) 579-587.
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29. A.M. **Efstathiou***, K. Fliatoura, "Selective catalytic reduction of nitric oxide with ammonia overV_2O_5/TiO_2 catalyst: A steady-state and transient kinetic study", *Appl. Catal. B: Environ.* 6 (**1995**) 35-59.
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33. V. Tsipouriari, A.M. **Efstathiou**, X.E. Verykios, "Transient Kinetic Study of the Oxidation and Hydrogenation of Carbon Species Formed During CH_4/He, CO_2/He and CH_4/CO_2 Reactions over Rh/Al_2O_3 Catalyst", *J. Catal.* 161 (**1996**) 31-42.
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34. M.A. Goula, A. Lemonidou, A.M. **Efstathiou***, "Characterization of Carbonaceous Species Formed During Reforming of CH_4 with CO_2 over $Ni/CaO\text{-}Al_2O_3$ Catalysts Studied by Various Transient Techniques", *J. Catal.* 161 (**1996**) 626-640.
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35. J. Boukouvalas, Z.L. Zhang, A.M. **Efstathiou**, X.E. Verykios, "Partial Oxidation of Methane to Synthesis Gas over Ru/TiO_2 Catalysts", *Stud. Surf. Sci. and Catal.* 101 (**1996**) 443-452.
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43. V.N. Stathopoulos, V.C. Belessi, C.N. Costa, S. Neophytides, P. Falaras, A.M. **Efstathiou**, P.J. Pomonis, "Catalytic Activity of High Surface Area Mesoporous Mn-based Mixed Oxides for the Deep Oxidation of Methane and Lean-NO_x Reduction", *Stud. Surf. Sci. Catal.* 130 (**2000**) 1529-1534.
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44. C.N. Costa, T. Anastasiadou, A.M. **Efstathiou***, "The Selective Catalytic Reduction of Nitric Oxide with Methane over La_2O_3-CaO Systems: Synergistic Effects and Surface Reactivity Studies of NO, CH_4, O_2 and CO_2 by Transient Techniques", *J. Catal.* 194 (**2000**) 250-265.
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54. K. Polychronopoulou, C.N. Costa, A.M. **Efstathiou***, "The Steam Reforming of Phenol Reaction over Supported-Rh Catalysts", *Appl. Catal. A: Gen.* 272 (**2004**) 37-52.
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III. Manuscripts in preparation (to be submitted by June 2022)

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Note: Articles No. **55**, **72, 83, 94, and 107** were ranked by Elsevier in the "***Top 25 Hottest Articles***.

IV. Patents

- **A.M. Efstathiou**, C.N. Costa and J.L.G. Fierro

"A Novel Stable, Active and Selective Catalyst for NO Reduction to N_2 with the use of Hydrogen under Lean De-NO_x Conditions"

1. Spanish Patent ES 2 192 985 B1 (2005)
2. US 7,105,137 B2 (2006)
3. EP 03704721 (2008)

- **A.M. Efstathiou**, P.G. Savva and C.N. Costa

"Catalyst Containing Platinum and Palladium for the Selective Reduction of NO_x with Hydrogen (H_2-SCR)"

4. US 8,114,369 B2 (2012)

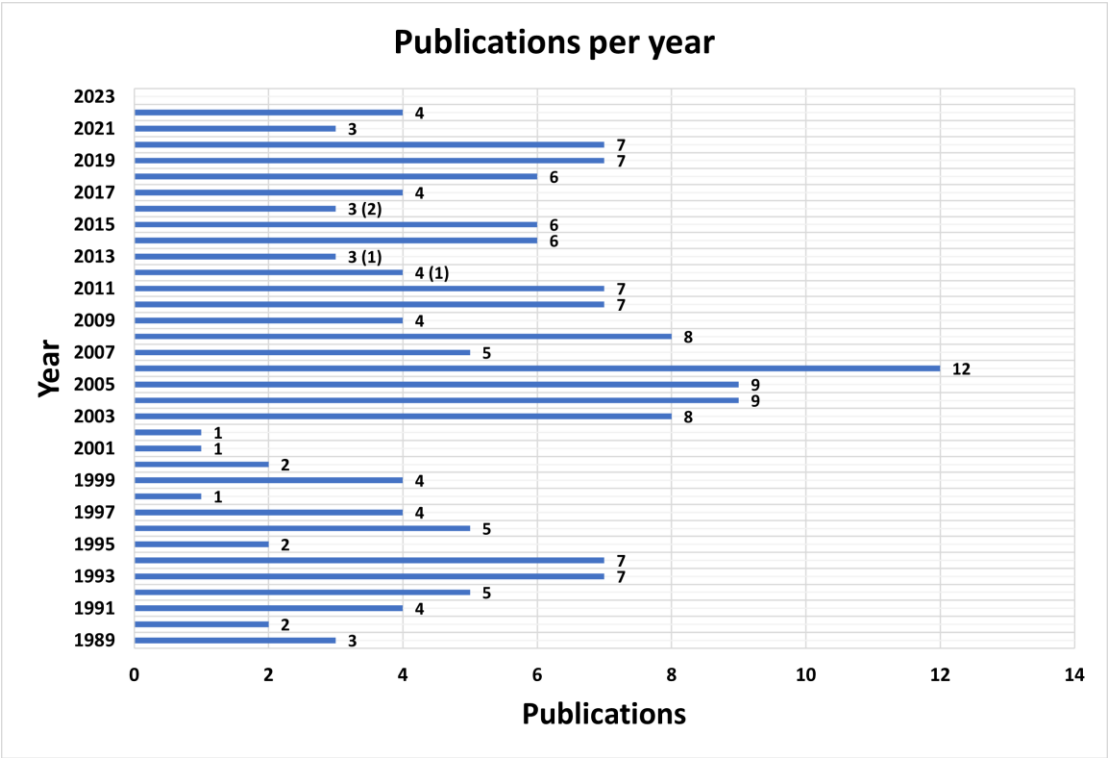

Figure 1: Number of publications in peer-reviewed journals and Book Chapters (number in parentheses) versus year of publication (1989- today).

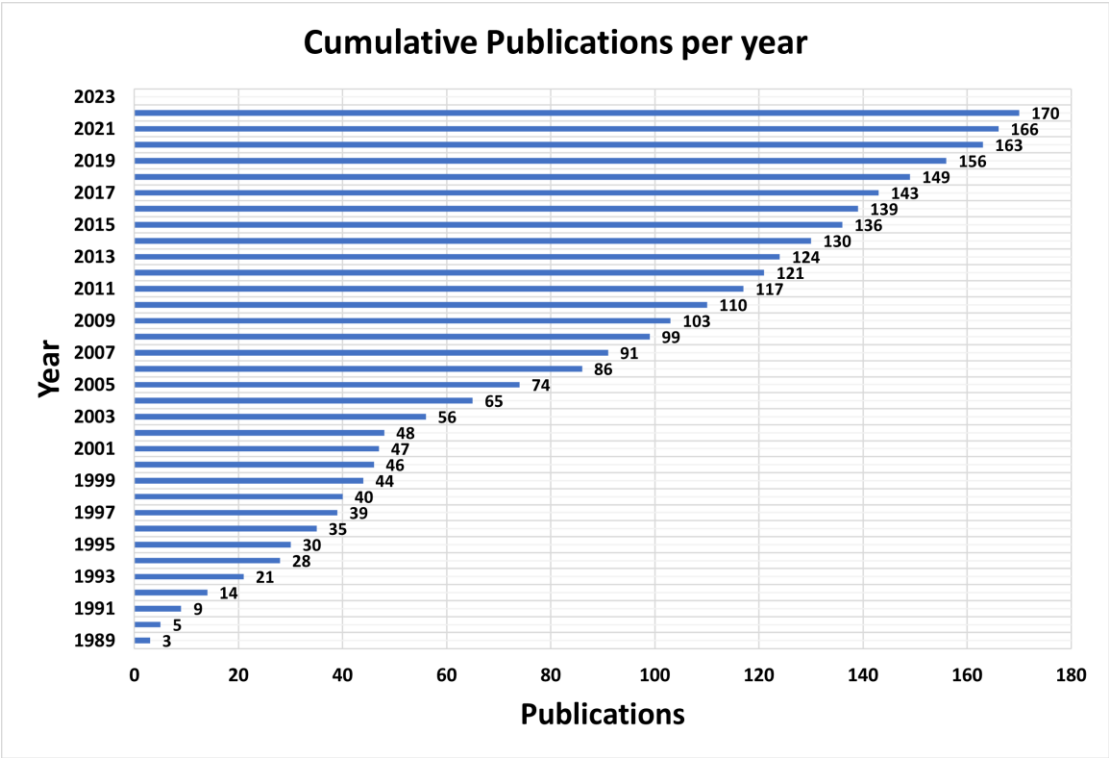

Figure 2: Cumulative number of publications in peer-reviewed journals and Book Chapters (number in parentheses) versus calendar year (1989- today).

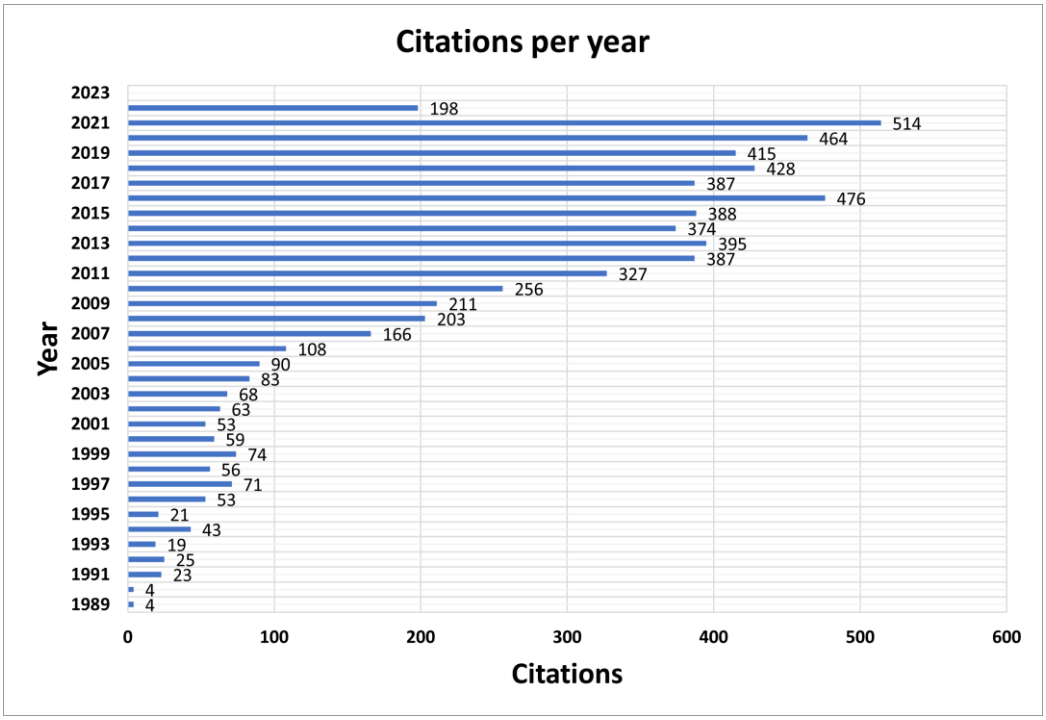

Figure 3: Total number of citations in peer-reviewed journals and Book Chapters (Scopus) versus calendar year (1989- today).

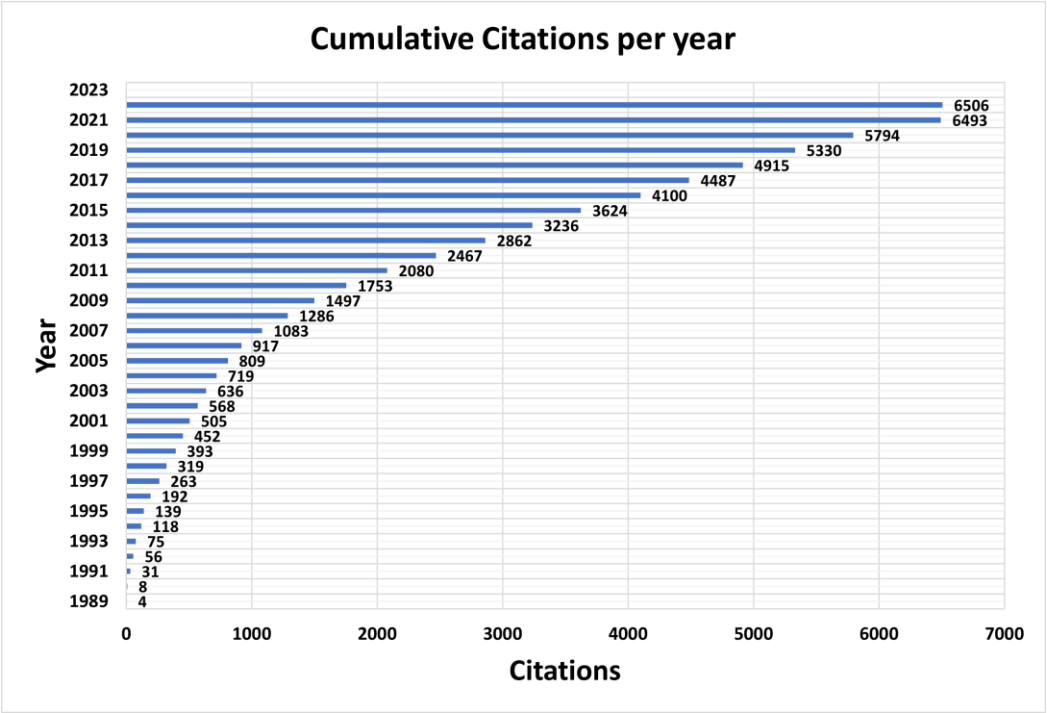

Figure 4: Cumulative number of citations in peer-reviewed journals and Book Chapters versus calendar year (1989- today).