

Curriculum Vitae

Name: Levon A. Tavadyan
Date of Birth: 09 June 1951
Place of Birth: Republic of Armenia.
Citizenship: Republic of Armenia.
Sex: Male
Marital Status: Married, three children
Official: Institute of Chemical Physics of Armenian NAS, P.Sevak str., 5/2, Yerevan.
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Education: 1968-1973 - Faculty of Chemistry of Yerevan State University.
1973-1977 - Post-graduate student at the Institute of Chemical Physics of Russian Academy of Sciences, Moscow.
1978 - Ph. D., Institute of Chemical Physics, RAS. Thesis: "Catalysis and inhibition of reactions of liquid-phase oxidation in systems containing aldehyde group and binary bond", submitted at Institute of Chemical Physics of RAS, Moscow.
1987 - Doctor of Sciences in Chemistry, Thesis: "Free-radical reactions in processes of catalysis and inhibition of liquid-phase oxidation of organic substances", submitted at Institute of Chemical Physics of RAS, Moscow.
Professional experience : 1978-1985 - senior researcher, Inst.of Chem. Physics, NAS of Armenia, Yerevan.
1980-1981- invited expert in the Central Institute of Chemistry of Republic of Hungary (Budapest)
1985-2006 - Deputy Director, Head of Laboratory, Inst.of Chem. Physics NAS of Armenia.
2006 to present - Director of the Institute of Chemical Physics NAS of Armenia, Head of Laboratory.
2009 to present - Academician-Secretary of the Division of Chemistry and Earth Sci. of NAS RA

Scientific interests: free-radical reactions; catalysis and photocatalysis of liquid-phase oxidation reactions; chemical mechanism of antioxidants' effect; numerical modeling of complex chemical reactions

Number of publications: more than 140;

Selected publications:

1. Martoyan G.A., Tavadyan L.A., Value method of revelation of kinetic significance in the model of chemical reaction. *Chim. Fizika (Chemical Physics)*, 2001, v.49, No.2, pp.22-23.

2. Tavadyan L.A., Tonikyan A.K., Sedrakyan G.Z., Minasyan S.H., Greenaway F.T., Sorenson J.R.J., "In vitro inetic antioxidant activities of radio protective and radio recovery Cu(II), Mn(II) and Fe(III) 3,5-diisopropylsalicylate chelates. *J. labelled Cpd. Radiopharm.* 2001, v.44, pp. 787-789.
3. Tavadyan L.A., Tonikyan A.K., Minasyan S.H., Harutyunyan L.A., Greenaway F.T., Skip Williams., Gray-Kaufman R.A, Sorenson J.R.J. "Anti-tert-butylperoxyl radical reactivities of copper(II), manganese(II) and iron(III) 3,5-diisopropylsalicylate chelates". *Inorganica Chimica Acta*, 2002, v.328, pp.1-12.
4. Tavadyan L.A., Martoyan G.A., Minasyan S.H. "Determination of the kinetic significance of elementary steps in the reaction of ethylbenzene oxidation inhibited by para-substituted phenols: Choice of an effective antioxidant". *Kinetics and Catalysis*, 2003, v. 44, No.1, pp. 91-100.
5. Tavadyan L.A., Martoyan G.A., Minasyan S.N. "Determination of the kinetic significance of elementary steps in the reaction of ethyl benzene oxidation inhibited by ionol". *Kinetics and Catalysis* , 2003, v.44, No.4, pp. 490-498.
6. Tavadyan L.A., Martoyan G.A., Minasyan S.N. "Numerical revelation of the molecular structure for reaction effective stimulator of inhibitor by the method of Hamiltonian systematization of chemical reaction system on kinetic models". *Lecture notes in computer science, Springer-Verlag*, 2003, v.2658, pp. 593-599.
7. Martoyan G.A., Tavadyan L.A. "Numerical revelation of kinetic significance for steps and species of complex chemical reaction mechanisms by Hamiltonian systematization method". *Lecture notes in computer science, Springer-Verlag*, 2003, v.2658, pp. 600-609.
8. Martoyan. G.A., Tavadyan L.A. "Numerical revelation and analysis of critical ignition conditions for branch chain reactions by Hamiltonian systematization methods of kinetic models". *Lecture notes in computer science, Springer-Verlag*, 2004, v.3044, pp. 309-406.
9. Tavadyan L.A., Sedrakyan G.Z., Minasyan S.H., Greenaway F.T., Sorenson J.R.J. "Anti-oxidant and pro-oxidant reactivities of copper(II), manganese(II) and iron(III) 3,5-di-*i*-propylsalicylate chelates during peroxidation of alkylbenzene". *Transition Metal Chemistry*, 2004, v.29, pp. 684-696.
10. Tavadyan L.A., Khachoyan A.A., Martoyan G.A., Minasyan S.H. "Study of Predictive Abilities of the Kinetic Models of Multistep Chemical Reactions by the Method of Value Analysis". *Lecture Notes of Computer Science*, 2004, v.3480, pp.1012-1019.
11. Minasyan S.H., Tavadyan L.A., Antonyan A.P., Davtyan H.G., Parsadanyan M.A., Vardevanyan P.O. "Differential Pulse Voltammetric Studies of Ethidium Bromide Binding to DNA". *Bioelectrochemistry*, 2006, v.68, pp.48-55.
12. Sedrakyan G.Z., Evans F.E., Minasyan S.H., Tavadyan L.A., Wangilas G.W., Wolker R.B., Sorenson J.R.J. "NMR and FTIR studies of coordinate-bonding and intramolecular and intermolecular hydrogen bonding in zinc(II) (3,5-diisopropylsalicylate)", *J. Coord. Chem.*, 2008, v. 61, No.18, pp. 2861-2875.
13. Levon A. Tavadyan, Seyran H. Minasyan, Makich V. Musaelyan, Lusik A. Harutyunyan, Hakob G. Tonikyan, John J.R. Sorenson. "Reactivity of Substituted Copper(II) Salicylates with tert-Butylperoxyl Radical: Structure – Reactivity Relationships". *International Journal of Chemical Kinetics*, 2010, v.42, pp. 56–67.

14. Tavadyan L.A., Galoian K.A., Harutyunyan L.A., Tonikyan H.G., Galoyan A.A. "Antioxidant and electron donating function of hypothalamic polypeptides: Galarmin and Gx-NH₂". *Neurochem. Research*, 2010, v.35, pp. 947–952.
15. Tavadyan L.A., Minasyan S.H., Musaelyan M.V., Harutyunyan L.H., Tonikyan H.G., Sorenson J.R.J. "Reactivity of substituted copper(II) salicylates with tert-butylperoxyl radical: Structure–reactivity relationships". *Intern. J. Chem. Kinetics*, 2010, v.42, pp. 56–67.
16. Sahakyan A.D., Harutyunyan L.H., Tavadyan L.A. "Antiperoxyradical activity of dimethylselenoxide". *Chem. J. Armenia*, 2012, v.65, No.2, pp. 189-195.
17. Arutyunov V.S., Strekova L.N., Tavadyan L.A. "New directions in oxidative conversion of natural and oil associated gases". *Chem. J. Armenia*, 2012, v.65, No.4, pp. 428-446.
18. Bakhtchadjian R.A., Tsarukyan S.V., Manucharova L.A., Tavadyan L.A., Barrault J., Martinez F.O. "Photochemical oxidative decomposition of 1-chloro-4-ethylbenzene in the presence of dioxo-molybdenum(VI) complex anchored on the TiO₂" [in Russian]. *Kinetika i Kataliz*, 2011, v.64, No.1, pp. 9-15.
19. Bakhtchadjian R.A., Tsarukyan S., Barrault I., Martinez F., Tavadyan L.A., Castellanos N. "Application of dioxo-molibdenum (VI) complex anchored on TiO₂ for the photochemical oxidative decomposition of 1-chloro-4-ethylbenzene under O₂". *Transition Metal Chemistry*, 2013, v.36, pp. 897-900.
20. Markaryan Sh.A., Tavadyan L.A., Kocharyan G.G., Shahnyan G.A. "Influence of the medium, dimethylsulfoxide, on electrochemical and antiradical properties of ascorbic acid" [in Russian]. *Proceedings of the Russian Academy of Sciences, Chemical series*, 2013, v.7, pp. 1625-1629.
21. Tavadyan L.A., Sahakyan A.D., Harutyunyan L.H., Tonikyan H.G., and Manukyan Z.O. "Antiradical activity of dimethylselenoxide and sodium selenite" [in Russian]. *Proceedings of the Russian Academy of Sciences, Chemical series*, 2013, No.3, pp. 1586-1589.
22. Tavadyan L.A. "The value is a systemic concept of the chemical kinetics" [in Russian]. *Nauka i tekhnologii*, 2012, No.3, pp. 56-63.
23. Tavadyan L.A., Musaelyan M.V., Minasyan S.H., Greenaway F.T. "Mediated kinetic effect in reaction of bis-3,5-di-iso-propylsalicylatozinc(II) with tert-butylperoxyl radicals". *Inorg. Chim. Acta*, 2014, v.418, pp. 119-125.