

LIST OF PUBLICATIONS

- Barta-Rajnai, E.; Várhegyi, G.; Wang, L.; Skreiberg, Ø.; Grønli, M.; Czégény, Zs. Thermal decomposition kinetics of wood and bark and their torrefied products. *Energy Fuels* **2017**, *31*, 4024-4034. doi: [10.1021/acs.energyfuels.6b03419](https://doi.org/10.1021/acs.energyfuels.6b03419) [Supporting info](#) i.f.=2.835
- Várhegyi, G.: In Honor of Michael J. Antal. *Energy Fuels* **2016**, *30*, 7809-7810. doi: [10.1021/acs.energyfuels.6b02476](https://doi.org/10.1021/acs.energyfuels.6b02476) i.f.=2.835
- Várhegyi, G.: From “sirups” to biocarbons. A 30 year cooperation research for better biomass utilization with Michael J. Antal, Jr. *Energy Fuels* **2016**, *30*, 7887-7895. doi: [10.1021/acs.energyfuels.6b00860](https://doi.org/10.1021/acs.energyfuels.6b00860) i.f.=2.835
- Wang, L.; Várhegyi, G.; Skreiberg, Ø.; Li, T.; Grønli, M.; Antal, M. J.: Combustion characteristics of biomass charcoals produced at different carbonization conditions. A kinetic study. *Energy Fuels* **2016**, *30*, 3186-3197. doi: [10.1021/acs.energyfuels.6b00354](https://doi.org/10.1021/acs.energyfuels.6b00354) [Supporting Info](#) i.f.=2.835
- Wang, L.; Várhegyi, G.; Skreiberg, Ø.: CO₂ Gasification of torrefied wood. A kinetic study. *Energy Fuels* **2014**, *28*, 7582-7590. doi: [10.1021/ef502308e](https://doi.org/10.1021/ef502308e) [Repository](#) [Supporting Info](#) i.f.=2.790
- Tapasvi, D.; Khalil, R.; Várhegyi, G.; Tran, K.-Q.; Grønli, M.; Skreiberg, Ø.: Thermal decomposition kinetics of woods with an emphasis on torrefaction. *Energy Fuels* **2013**, *27*, 6134-6145. doi: [10.1021/ef4016075](https://doi.org/10.1021/ef4016075) [Repository](#) i.f.=2.733
- Wang, L.; Sandquist, J.; Várhegyi, G.; Matas Güell, B.: CO₂ Gasification of Chars Prepared from Wood and Forest Residue. A Kinetic Study. *Energy Fuels* **2013**, *27*, 6098-6107. doi: [10.1021/ef401118f](https://doi.org/10.1021/ef401118f) [Repository](#) i.f.=2.733
- Tapasvi, D.; Khalil, R.; Várhegyi, G.; Skreiberg, Ø.; Tran, K.-Q.; Grønli, M.: Kinetic behavior of torrefied biomass in an oxidative environment. *Energy Fuels* **2013**, *27*, 1050-1060. doi: [10.1021/ef3019222](https://doi.org/10.1021/ef3019222) [Repository](#) [Supporting Info](#) i.f.=2.733
- Trninić, M.; Wang, L.; Várhegyi, G.; Grønli, M.; Skreiberg, Ø.: Kinetics of corncob pyrolysis. *Energy Fuels* **2012**, *26*, 2005-2013. doi: [10.1021/ef3002668](https://doi.org/10.1021/ef3002668) [Repository](#) i.f.= 2.853
- Várhegyi, G.; Sebestyén, Z.; Czégény, Z.; Lezsovits, F.; Könczöl, S.: Combustion kinetics of biomass materials in the kinetic regime. *Energy Fuels* **2012**, *26*, 1323-1335. doi: [10.1021/ef201497k](https://doi.org/10.1021/ef201497k) [Repository](#) [Supporting Info](#) i.f.= 2.853
- Sebestyén, Z.; Lezsovits, F.; Jakab, E.; Várhegyi, G.: Correlation between heating values and thermogravimetric data of sewage sludge, herbaceous crops and wood samples. *J. Therm. Anal. Calor.* **2012**, *110*, 1501-1509, doi: [10.1007/s10973-011-2078-4](https://doi.org/10.1007/s10973-011-2078-4) i.f.=1.982
- Várhegyi, G.; Bobály, B.; Jakab, E.; Chen, H.: Thermogravimetric study of biomass pyrolysis kinetics. A distributed activation energy model with prediction tests. *Energy Fuels* **2011**, *25*, 24-32. doi: [10.1021/ef101079r](https://doi.org/10.1021/ef101079r) [Repository](#) [Supporting Info](#) i.f.=2.721
- Várhegyi, G.; Czégény, Zs.; Liu, C.; McAdam, K.: Thermogravimetric analysis of tobacco combustion assuming DAEM devolatilization and empirical char-burnoff kinetics. *Ind. Eng. Chem. Res.* **2010**, *49*, 1591-1599. doi: [10.1021/ie901180d](https://doi.org/10.1021/ie901180d) [Repository](#) [Supporting Info](#) i.f.=2.071
- Várhegyi, G.; Chen, H.; Godoy, S.: Thermal decomposition of wheat, oat, barley and *Brassica carinata* straws. A kinetic study. *Energy Fuels* **2009**, *23*, 646-652. doi: [10.1021/ef800868k](https://doi.org/10.1021/ef800868k) [Repository](#) [Supporting Info](#) i.f.=2.319
- Khalil, R.; Várhegyi, G.; Jäschke, S.; Grønli, M. G.; Hustad, J.: CO₂ gasification of biomass chars. A kinetic study. *Energy Fuels* **2009**, *23*, 94-100. doi: [10.1021/ef800739m](https://doi.org/10.1021/ef800739m) [Repository](#) i.f.=2.319
- Várhegyi, G.; Czégény, Zs.; Jakab, E.; McAdam, K.; Liu, C.: Tobacco pyrolysis. Kinetic evaluation of thermogravimetric – mass spectrometric experiments. *J. Anal. Appl. Pyrolysis* **2009**, *86*, 310-322. doi: [10.1016/j.jaap.2009.08.008](https://doi.org/10.1016/j.jaap.2009.08.008) [Repository](#) [Supplementary Content](#) i.f.=2.311
- Czégény, Zs.; Blazsó, M.; Várhegyi, G.; Jakab, E.; Liu, C.; Nappi, L.: Formation of selected toxicants from tobacco under different pyrolysis conditions, *J. Anal. Appl. Pyrolysis* **2009**, *85*, 47-53. doi: [10.1016/j.jaap.2008.10.001](https://doi.org/10.1016/j.jaap.2008.10.001) i.f.=2.311
- Mészáros, E.; Jakab, E.; Gáspár, M.; Réczey, K.; Várhegyi, G.: Thermal behavior of corn fibers and corn fiber gums prepared in fiber processing to ethanol, *J. Anal. Appl. Pyrolysis* **2009**, *85*, 11-18. doi: [10.1016/j.jaap.2008.10.004](https://doi.org/10.1016/j.jaap.2008.10.004) i.f.=2.311
- Wu, M.; Várhegyi, G.; Zha Q.: Kinetics of cellulose pyrolysis after a pressurized heat treatment. *Thermochim. Acta* **2009**, *496*, 59-65. doi: [10.1016/j.tca.2009.06.024](https://doi.org/10.1016/j.tca.2009.06.024) [Repository](#) i.f.=1.742
- Khalil, R. A.; Mészáros, E.; Grønli, M.G.; Várhegyi, G.; Mohai, I.; Marosvölgyi, B.; Hustad, J. E.: Thermal analysis of energy crops. Part I: The applicability of a macro-thermobalance for biomass studies. *J. Anal. Appl. Pyrolysis* **2008**, *81*, 52-59. doi: [10.1016/j.jaap.2007.08.004](https://doi.org/10.1016/j.jaap.2007.08.004) i.f.=1.911

- Mészáros, E.; Jakab, E.; Várhegyi, G.; Bourke, J.; Manley-Harris, M.; Nunoura, T.; Antal, M. J., Jr.: Do all carbonized charcoals have the same chemical structure? 1. Implications of thermogravimetry - mass spectrometry measurements. *Ind. Eng. Chem. Res.* **2007**, *46*, 5943-5953. doi: [10.1021/ie061584z](https://doi.org/10.1021/ie061584z) i.f.=1.749
- Becidan, M.; Várhegyi, G.; Hustad, J. E.; Skreiberg, Ø.: Thermal decomposition of biomass wastes. A kinetic study. *Ind. Eng. Chem. Res.* **2007**, *46*, 2428-2437. doi: [10.1021/ie061468z](https://doi.org/10.1021/ie061468z) [Repository](#) i.f.=1.749
- Várhegyi, G.: Aims and methods in non-isothermal reaction kinetics. *J. Anal. Appl. Pyrolysis* **2007**, *79*, 278-288. doi: [10.1016/j.jaap.2007.01.007](https://doi.org/10.1016/j.jaap.2007.01.007) [Repository](#) i.f.=2.120
- Mészáros, E.; Jakab, E.; Várhegyi, G.: TG/MS, Py-GC/MS and THM-GC/MS study of the composition and thermal behavior of extractive components of *Robinia pseudoacacia*. *J. Anal. Appl. Pyrolysis* **2007**, *79*, 61-70. doi: [10.1016/j.jaap.2006.12.007](https://doi.org/10.1016/j.jaap.2006.12.007) i.f.=2.120
- Mészáros, E.; Jakab, E.; Várhegyi, G.; Tóvári, P.: Thermogravimetry/mass spectrometry analysis of energy crops. *J. Therm. Anal. Calor.* **2007**, *88*, 477-482. doi: [10.1007/s10973-006-8102-4](https://doi.org/10.1007/s10973-006-8102-4) i.f.=1.483
- Várhegyi, G.; Mészáros, E.; Antal, M. J., Jr.; Bourke, J.; Jakab, E.: Combustion kinetics of corncob charcoal and partially demineralized corncob charcoal in the kinetic regime. *Ind. Eng. Chem. Res.* **2006**, *45*, 4962-4970. doi: [10.1021/ie0602411](https://doi.org/10.1021/ie0602411) [Repository](#) i.f.=1.518
- Gómez, C. J.; Várhegyi, G.; Puigjaner, L.: Slow pyrolysis of woody residues and an herbaceous biomass crop: A kinetic study *Ind. Eng. Chem. Res.* **2005**, *44*, 6650-6660. doi: [10.1021/ie050474c](https://doi.org/10.1021/ie050474c) i.f.=1.504
- Várhegyi, G.; Mészáros, E.; Jakab, E.: Advanced computational methods for the characterization of biomass samples by thermogravimetric analysis. In *Biomass for Energy, Industry and Climate Protection, Proceedings of the 2nd World Biomass Conference*, Edited by W. P. M. Van Swaaij et al., pp. 902-905, ETA and WIP, Florence **2004**, i.f.=
- Mészáros, E.; Várhegyi, G.; Jakab, E.; Marosvölgyi, B.: Thermogravimetric and reaction kinetic analysis of biomass samples from an energy plantation. *Energy Fuels* **2004**, *18*, 497-507. doi: [10.1021/ef034030%2B](https://doi.org/10.1021/ef034030%2B) [Repository](#) i.f.=1.344
- Várhegyi, G.; Grønli, M. G.; Di Blasi, C.: Effects of sample origin, extraction and hot water washing on the devolatilization kinetics of chestnut wood. *Ind. Eng. Chem. Res.* **2004**, *43*, 2356-2367. doi: [10.1021/ie034168f](https://doi.org/10.1021/ie034168f) [Repository](#) i.f.=1.424
- Mészáros, E.; Jakab, E.; Várhegyi, G.; Szepesváry, P.; Marosvölgyi, B.: Comparative study of the thermal behavior of wood and bark of young shoots obtained from an energy plantation. *J. Anal. Appl. Pyrolysis*, **2004**, *72*, 317-328. doi: [10.1016/j.jaap.2004.07.009](https://doi.org/10.1016/j.jaap.2004.07.009) i.f.=1.352
- Mochidzuki, K.; Soutric, F.; Tadokoro, K.; Antal, M. J., Jr.; Tóth, M.; Zelei, B.; Várhegyi, G.: Electrical and Physical Properties of Carbonized Charcoals. *Ind. Eng. Chem. Res.* **2003**, *42*, 5140 – 5151. doi: [10.1021/ie030358e](https://doi.org/10.1021/ie030358e) i.f.=1.317
- Várhegyi, G.; Pöpl, L.; Földvári, I.: Kinetics of the oxidation of bismuth tellurite, Bi₂TeO₅: Empirical model and least squares evaluation strategies to obtain reliable kinetic information. *Thermochim. Acta* **2003**, *399*, 225-239. doi: [10.1016/S0040-6031\(02\)00469-0](https://doi.org/10.1016/S0040-6031(02)00469-0) i.f.=0.956
- Várhegyi, G.; Antal, M. J., Jr.: Charcoal, carbons and charcoal-type fuels from biomass wastes. *Ecological Chemistry and Engineering - Chemia i Inzynieria Ekologiczna* **2002**, *9*, 21-31. i.f.=
- Mészáros, E.; Jakab, E.; Várhegyi, G.; Marosvölgyi, B.: Thermal behavior of biomass plant materials. *Ecological Chemistry and Engineering - Chemia i Inzynieria Ekologiczna* **2002**, *9*, 33-41. i.f.=
- Várhegyi, G.; Szabó, P.; Antal, M. J., Jr.: Kinetics of charcoal devolatilization. *Energy Fuels* **2002**, *16*, 724-731. doi: [10.1021/ef010227v](https://doi.org/10.1021/ef010227v) [Repository](#) i.f.=1.198
- Grønli, M. G.; Várhegyi, G.; Di Blasi, C.: Thermogravimetric analysis and devolatilization kinetics of wood. *Ind. Eng. Chem. Res.* **2002**, *41*, 4201-4208. doi: [10.1021/ie0201157](https://doi.org/10.1021/ie0201157) i.f.=1.247
- Tam, M. S.; Antal, M. J., Jr.; Jakab, E.; Várhegyi, G.: Activated carbon from macadamia nut shell by air oxidation in boiling water. *Ind. Eng. Chem. Res.* **2001**, *40*, 578-588. doi: [10.1021/ie000461t](https://doi.org/10.1021/ie000461t) i.f.=1.351
- Várhegyi, G.; Szabó, P.; Jakab, E.; Till, F.: Least squares criteria for the kinetic evaluation of thermoanalytical experiments. Examples from a char reactivity study. *J. Anal. Appl. Pyrolysis* **2001**, *57*, 203-222. doi: [10.1016/S0165-2370\(00\)00113-3](https://doi.org/10.1016/S0165-2370(00)00113-3) [Repository](#) i.f.=1.787
- Pöpl, L.; Földvári, I.; Várhegyi, G.: Oxidation of bismuth tellurite, Bi₂TeO₅ I. Thermoanalytical and optical microscopic studies. *J. Solid State Chem.* **2001**, *161*, 365-372. doi: [10.1006/jssc.2001.9344](https://doi.org/10.1006/jssc.2001.9344) i.f.=1.614
- Várhegyi, G.; Szabó, P.; Antal, M. J., Jr.; Dai, X.: Kinetic modeling of the gasification of biomass charcoals. In *1st World Conference on Biomass for Energy and Industry (Proceedings)*, Edited by S. Kyritsis et al., Volume 2, pp. 1783-1785, James & James Science Ltd., **2001**, i.f.=

- Jakab, E.; Várhegyi, G.; Faix, O.: Thermal decomposition of polypropylene in the presence of wood-derived materials. *J. Anal. Appl. Pyrolysis* **2000**, 56, 273-285. doi:[10.1016/S0165-2370\(00\)00101-7](https://doi.org/10.1016/S0165-2370(00)00101-7) i.f.=1.207
- Virág, I.; Pöpl, L.; Várhegyi, G.: Kinetic study of rapidly quenched Ni₈₁P₁₉ amorphous alloys. *Thermochim. Acta* **2000**, 351, 79-84. doi:[10.1016/S0040-6031\(00\)00422-6](https://doi.org/10.1016/S0040-6031(00)00422-6) i.f.=0.807
- Várhegyi, G.; Till, F.: Comparison of temperature programmed char combustion in CO₂ - O₂ and Ar - O₂ mixtures at elevated pressure. *Energy Fuels* **1999**, 13, 539-540. doi:[10.1021/ef980159j](https://doi.org/10.1021/ef980159j) [Repository](#) i.f.=1.011
- Grønli, M.; Antal, M. J., Jr.; Várhegyi, G.: A round-robin study of cellulose pyrolysis kinetics by thermogravimetry. *Ind. Eng. Chem. Res.* **1999**, 38, 2238-2244. doi:[10.1021/ie980601n](https://doi.org/10.1021/ie980601n) [Repository](#) i.f.=1.290
- Várhegyi, G.; Till, F.: Computer processing of thermogravimetric - mass spectrometric and high pressure thermogravimetric data. Part 1. Smoothing and differentiation. *Thermochim. Acta* **1999**, 329, 141-145. doi:[10.1016/S0040-6031\(99\)00041-6](https://doi.org/10.1016/S0040-6031(99)00041-6) [Repository](#) i.f.=0.887
- Várhegyi, G.; Szabó, P.; Till, F.; Zelei, B.; Antal, M. J., Jr.; Dai X.: TG, TG-MS and FTIR characterization of high-yield biomass charcoals. *Energy Fuels* **1998**, 12, 969-974. doi:[10.1021/ef9800359](https://doi.org/10.1021/ef9800359) [Repository](#) i.f.=1.148
- Antal, M. J., Jr.; Várhegyi, G.; Jakab, E.: Cellulose pyrolysis kinetics: Revisited. *Ind. Eng. Chem. Res.* **1998**, 37, 1267-1275. doi:[10.1021/ie970144v](https://doi.org/10.1021/ie970144v) [Repository](#) i.f.=1.229
- Minowa, T.; Zhen, F.; Ogi, T.; Várhegyi, G.: Decomposition of cellulose and glucose in hot-compressed water under catalyst-free condition. *J. Chem. Eng. Japan* **1998**, 31, 131-134. doi:[10.1252/jcej.31.131](https://doi.org/10.1252/jcej.31.131) i.f.=0.687
- Antal, M. J., Jr.; Várhegyi, G.: Impact of systematic errors on the determination of cellulose pyrolysis kinetics. *Energy Fuels* **1997**, 11, 1309-1310. doi:[10.1021/ef970030w](https://doi.org/10.1021/ef970030w) [Repository](#) i.f.=1.226
- Várhegyi, G.; Antal, M. J., Jr.; Jakab, E., Szabó, P.: Kinetic modeling of biomass pyrolysis. *J. Anal. Appl. Pyrolysis* **1997**, 42, 73-87. doi:[10.1016/S0165-2370\(96\)00971-0](https://doi.org/10.1016/S0165-2370(96)00971-0) [Repository](#) i.f.=1.156
- Minowa, T.; Zhen, F.; Ogi, T.; Várhegyi, G.: Liquefaction of cellulose in hot compressed water using sodium carbonate: Product distribution at different reaction temperatures. *J. Chem. Eng. Japan* **1997**, 30, 186-190. doi:[10.1252/jcej.30.186](https://doi.org/10.1252/jcej.30.186) i.f.=0.566
- Várhegyi, G.; Szabó, P.; Jakab, E.; Till, F.; Richard J-R.: Mathematical modeling of char reactivity in Ar-O₂ and CO₂-O₂ mixtures. *Energy Fuels* **1996**, 10, 1208-1214. doi:[10.1021/ef950252z](https://doi.org/10.1021/ef950252z) [Repository](#) i.f.=1.447
- Szabó, P.; Várhegyi, G.; Till, F.; Faix, O.: Thermogravimetric - mass spectrometric characterization of two energy crops, *Arundo donax* and *Miscanthus sinensis*. *J. Anal. Appl. Pyrolysis* **1996**, 36, 179-190. doi:[10.1016/0165-2370\(96\)00931-X](https://doi.org/10.1016/0165-2370(96)00931-X) i.f.=1.134
- Várhegyi, G.; Antal, M. J., Jr.; Szabó, P.; Jakab, E.; Till, F.: Application of complex reaction kinetic models in thermal analysis. The least squares evaluation of series of experiments. *J. Thermal Anal.* **1996**, 47, 535-542. doi:[10.1007/BF01983995](https://doi.org/10.1007/BF01983995) [Repository](#) i.f.=0.361
- Antal, M. J., Jr.; Várhegyi, G.: Cellulose pyrolysis kinetics: The current state of knowledge. *Ind. Eng. Chem. Res.* **1995**, 34, 703-717. doi:[10.1021/ie00042a001](https://doi.org/10.1021/ie00042a001) i.f.=1.159
- Várhegyi, G.; Szabó, P.; Antal, M. J., Jr.: Reaction kinetics of the thermal decomposition of cellulose and hemicellulose in biomass materials. In *Advances in Thermochemical Biomass Conversion* (Ed. by A. V. Bridgwater), Volume 2, Blackie Academic and Professional, London, pp. 760-771, **1994**, doi:[10.1007/978-94-011-1336-6_59](https://doi.org/10.1007/978-94-011-1336-6_59) [Repository](#) i.f.=-
- Várhegyi, G.; Szabó, P.; Antal, M. J., Jr.: Kinetics of the thermal decomposition of cellulose under the experimental conditions of thermal analysis. Theoretical extrapolations to high heating rates. *Biomass Bioenergy* **1994**, 7, 69-74. doi:[10.1016/0961-9534\(95\)92631-H](https://doi.org/10.1016/0961-9534(95)92631-H) [Repository](#) i.f.=-
- Várhegyi, G.; Jakab, E.; Antal, M. J., Jr.: Is the Broido - Shafizadeh model for cellulose pyrolysis true? *Energy Fuels* **1994**, 8, 1345-1352. doi:[10.1021/ef00048a025](https://doi.org/10.1021/ef00048a025) [Repository](#) i.f.=1.218
- Várhegyi, G.; Szabó, P.; Mok, W. S. L.; Antal, M. J., Jr.: Kinetics of the thermal decomposition of cellulose in sealed vessels at elevated pressures. Effects of the presence of water on the reaction mechanism. *J. Anal. Appl. Pyrolysis* **1993**, 26, 159-174. doi:[10.1016/0165-2370\(93\)80064-7](https://doi.org/10.1016/0165-2370(93)80064-7) [Repository](#) i.f.=1.321
- Mok, W. S. L.; Antal, M. J., Jr.; Szabó, P.; Várhegyi, G.; Zelei, B.: Formation of charcoal from biomass in a sealed reactor. *Ind. Eng. Chem. Res.* **1992**, 31, 1162-1166. doi:[10.1021/ie00004a027](https://doi.org/10.1021/ie00004a027) i.f.=0.965
- Mok, W. S. L.; Antal, M. J., Jr.; Várhegyi, G.: Productive and parasitic pathways in dilute acid hydrolysis of cellulose. *Ind. Eng. Chem. Res.* **1992**, 31, 94-100. doi:[10.1021/ie00001a014](https://doi.org/10.1021/ie00001a014) i.f.=0.965
- Jakab, E.; Till, F.; Várhegyi, G.: Thermogravimetric - mass spectrometric study on the low temperature oxidation of coals. *Fuel Process. Technol.* **1991**, 28, 221-238. doi:[10.1016/0378-3820\(91\)90076-O](https://doi.org/10.1016/0378-3820(91)90076-O) i.f.=0.640

- Antal, M. J., Jr.; Mok, W. S. L.; Várhegyi, G.; Székely, T.: A review of methods for improving the yield of charcoal from biomass. *Energy Fuels* **1990**, *4*, 221-225. doi:[10.1021/ef00021a001](https://doi.org/10.1021/ef00021a001) i.f.=1.331
- Szabó, P.; Várhegyi, G.; Till, F.; Székely, T.: Investigation of Hungarian subbituminous coals by thermogravimetry - mass spectrometry. Part 1: Evolution of hydrocarbon products. *Thermochim. Acta* **1990**, *170*, 167-177. doi:[10.1016/0040-6031\(90\)80534-6](https://doi.org/10.1016/0040-6031(90)80534-6) i.f.=0.538
- Szabó, P.; Várhegyi, G.; Till, F.; Székely, T.: Investigation of Hungarian subbituminous coals by thermogravimetry - mass spectrometry. Part 2: Evolution of oxygen and sulphur containing products. Kinetics of the overall mass loss. *Thermochim. Acta* **1990**, *170*, 179-188. doi:[10.1016/0040-6031\(90\)80535-7](https://doi.org/10.1016/0040-6031(90)80535-7) i.f.=0.538
- Várhegyi, G.; Antal, M. J., Jr.; Székely, T.; Szabó, P.: Kinetics of the thermal decomposition of cellulose, hemicellulose and sugar cane bagasse. *Energy Fuels* **1989**, *3*, 329-335. doi:[10.1021/ef00015a012](https://doi.org/10.1021/ef00015a012) i.f.=1.520
- Várhegyi, G.; Jakab, E.; Till, F.; Székely, T.: Thermogravimetric - mass spectrometric characterization of the thermal decomposition of sunflower stem. *Energy Fuels* **1989**, *3*, 755-760. doi:[10.1021/ef00018a017](https://doi.org/10.1021/ef00018a017) i.f.= 1.520
- Pokol, Gy.; Várhegyi, G.: Kinetic aspects of thermal analysis. *CRC Crit. Rev. Anal. Chem.* **1988**, *19*, 65-93. doi:[10.1080/10408348808542808](https://doi.org/10.1080/10408348808542808) i.f.=3.900
- Várhegyi, G.; Antal, M. J., Jr.; Székely, T.; Till, F.; Jakab, E.: Simultaneous thermogravimetric - mass spectrometric studies on the thermal decomposition of biopolymers. Part 1: Avicel cellulose in the presence and absence of catalysts. *Energy Fuels* **1988**, *2*, 267-272. doi:[10.1021/ef00009a007](https://doi.org/10.1021/ef00009a007) i.f.=1.461
- Várhegyi, G.; Antal, M. J., Jr.; Székely, T.; Till, F.; Jakab, E.; Szabó, P.: Simultaneous thermogravimetric - mass spectrometric studies on the thermal decomposition of biopolymers. Part 2: Sugar cane bagasse in the presence and absence of catalysts. *Energy Fuels* **1988**, *2*, 273-277. doi:[10.1021/ef00009a008](https://doi.org/10.1021/ef00009a008) i.f.=1.461
- Šimkovic, I.; Várhegyi, G.; Antal, M. J., Jr.; Ebringerova, A.; Székely, T.; Szabó, P.: TG/MS characterization of the thermal decomposition of (4-O-methyl-D-glucurono)-D-xylan. *J. Appl. Polym. Sci.* **1988**, *36*, 721-728. doi:[10.1002/app.1988.070360320](https://doi.org/10.1002/app.1988.070360320) i.f.=0.553
- Várhegyi, G.; Székely, T.; Till, F.; Jakab, E.; Szabó, P.: Influence of the sample mass and the presence of the reaction products on the thermoanalytical results. *J. Thermal Anal.* **1988**, *33*, 87-95. doi:[10.1007/BF01914587](https://doi.org/10.1007/BF01914587) i.f.=0.470
- Székely, T.; Várhegyi, G.; Till, F.; Szabó, P.; Jakab, E.: The effects of heat and mass transport on the results of thermal decomposition studies. Part 1: The three reactions of calciumoxalate monohydrate. *J. Anal. Appl. Pyrolysis* **1987**, *11*, 71-81. doi:[10.1016/0165-2370\(87\)85020-9](https://doi.org/10.1016/0165-2370(87)85020-9) i.f.=1.568
- Székely, T.; Várhegyi, G.; Till, F.; Szabó, P.; Jakab, E.: The effects of heat and mass transport on the results of thermal decomposition studies. Part 2: Polystyrene, polytetrafluoroethylene and polypropylene. *J. Anal. Appl. Pyrolysis* **1987**, *11*, 83-92. doi:[10.1016/0165-2370\(87\)85021-0](https://doi.org/10.1016/0165-2370(87)85021-0) i.f.=1.568
- Várhegyi, G.: Reaction kinetics in thermal analysis: A brief survey of fundamental research problems. *Thermochim. Acta* **1987**, *110*, 95-99. doi:[10.1016/0040-6031\(87\)88215-1](https://doi.org/10.1016/0040-6031(87)88215-1) i.f.=0.672
- Várhegyi, G.; Szabó, P.; Till, F.: Problems in the DSC and DTA study of the burning properties of fuels and other organic materials. *Thermochim. Acta* **1986**, *106*, 191-199. doi:[10.1016/0040-6031\(86\)85131-0](https://doi.org/10.1016/0040-6031(86)85131-0) i.f.=0.471
- Várhegyi, G.; Till, F.; Székely, T.: Software for a mass spectrometer - thermobalance system. *Thermochim. Acta* **1986**, *102*, 115-124. doi:[10.1016/0040-6031\(86\)85320-5](https://doi.org/10.1016/0040-6031(86)85320-5) i.f.=0.471
- Blazsó, M.; Székely, T.; Till, F.; Várhegyi, G.; Jakab, E.; Szabó, P.: Pyrolysis GC-MS and TG-MS investigation of brown coals. *J. Anal. Appl. Pyrolysis* **1985**, *8*, 255-269. doi:[10.1016/0165-2370\(85\)80030-9](https://doi.org/10.1016/0165-2370(85)80030-9) i.f.=1.045
- Várhegyi, G.; Alexander, G.: The use of histograms in computer aided comparison of chromatograms. *J. Chromatography* **1985**, *318*, 247-253. doi:[10.1016/S0021-9673\(01\)90685-5](https://doi.org/10.1016/S0021-9673(01)90685-5) i.f.=
- Várhegyi, G.; Szabó, P.; Till, F.: On the kinetic evaluation of the thermogravimetric curves. *Thermochim. Acta* **1985**, *92*, 141-144. doi:[10.1016/0040-6031\(85\)85837-8](https://doi.org/10.1016/0040-6031(85)85837-8) i.f.=0.729
- Pokol, Gy.; Várhegyi, G.; Várad, L.: Studies on the kinetics of the gibbsite ---> chi-alumina reaction. *Thermochim. Acta* **1984**, *76*, 237-247. doi:[10.1016/0040-6031\(84\)87021-5](https://doi.org/10.1016/0040-6031(84)87021-5) i.f.=0.719
- Várhegyi, G.: The effects of imperfect temperature programming on the kinetic evaluation of thermoanalytical curves. Part 3. Error bounds for the activation energy and the formal reaction order. *Thermochim. Acta* **1983**, *65*, 333-350. doi:[10.1016/0040-6031\(83\)80033-1](https://doi.org/10.1016/0040-6031(83)80033-1) i.f.=0.797
- Várhegyi, G.: The effects of imperfect temperature programming on the kinetic evaluation of thermoanalytical curves. Part 1. A simple mathematical example. *Thermochim. Acta* **1982**, *59*, 31-41. doi:[10.1016/0040-6031\(82\)87090-1](https://doi.org/10.1016/0040-6031(82)87090-1) i.f.=0.835

- Várhegyi, G.: The effects of imperfect temperature programming on the kinetic evaluation of thermoanalytical curves. Part 2. Concave and convex curvatures on the temperature - time functions. *Thermochim. Acta* **1982**, 59, 43-49. doi: [10.1016/0040-6031\(82\)87091-3](https://doi.org/10.1016/0040-6031(82)87091-3) i.f.=0.835
- Várhegyi, G.: The shape of the thermoanalytical curves at hyperbolic temperature programs. *Thermochim. Acta* **1982**, 57, 247-250. doi: [10.1016/0040-6031\(82\)80064-6](https://doi.org/10.1016/0040-6031(82)80064-6) i.f.=0.835
- Várhegyi, G.; Székely, T.: Reaction kinetics in thermal analysis: The sensitivity of kinetic equations to experimental errors. A mathematical analysis. *Thermochim. Acta* **1982**, 57, 13-28. doi: [10.1016/0040-6031\(82\)87019-6](https://doi.org/10.1016/0040-6031(82)87019-6) i.f.=0.835
- Székely, T.; Till, F.; Várhegyi, G.: Comments on the use of reaction kinetics for thermal analysis. *Proc. 2nd European Symp. Therm. Anal.*, (Ed.: D. Dollimore) Heyden, London, pp. 135-138, **1981**, i.f.=-
- Blazsó, M.; Várhegyi, G.; Jakab, E.: Pyrolysis - gas chromatography of styrene - acrylonitrile copolymers. Calculations of kinetic parameters and sequence distribution. *J. Anal. Appl. Pyrolysis* **1980**, 2, 177-185. doi: [10.1016/0165-2370\(80\)80029-5](https://doi.org/10.1016/0165-2370(80)80029-5) i.f.=1.385
- Várhegyi, G.: A basic problem in the mathematical modelling of pyrolysis: The number of the unknown parameters. *J. Anal. Appl. Pyrolysis* **1980**, 2, 1-6. doi: [10.1016/0165-2370\(80\)80040-4](https://doi.org/10.1016/0165-2370(80)80040-4) i.f.=1.385
- Székely, T.; Till, F.; Várhegyi, G.; Blazsó, M.: Description of the thermal degradation of polymers by the use of complex thermal analysis. *J. Polym. Sci., Polym. Symp.* **1980**, 67, 115-131. doi: [10.1002/polc.5070670109](https://doi.org/10.1002/polc.5070670109) i.f.=1.222
- Székely, T.; Till, F.; Várhegyi, G.: Characterisation of fossil fuels by computer aided thermobalance - mass spectrometer system. *Proc. 6th Internat. Conf. Thermal Anal.* (Ed.: W. Hemminger) Birkhauser Verlag, Basel, vol. 2, pp. 365-370, **1980**, i.f.=-
- Várhegyi, G.; Groma, G.; Lengyel, M.: DSC examination of alloys. *Thermochim. Acta* **1979**, 30, 311-317. doi: [10.1016/0040-6031\(79\)85066-2](https://doi.org/10.1016/0040-6031(79)85066-2) i.f.=0.675
- Várhegyi, G.: Kinetic evaluation of non-isothermal thermoanalytical curves in the case of independent reactions. *Thermochim. Acta* **1979**, 28, 367-376. doi: [10.1016/0040-6031\(79\)85140-0](https://doi.org/10.1016/0040-6031(79)85140-0) i.f.=0.675
- Blazsó, M.; Várhegyi, G.: Calculation of kinetic parameters and sequence distribution from pyrolysis gas chromatography data of styrene - methylacrylate copolymers. *Europ. Polym. J.* **1978**, 14, 625-630. doi: [10.1016/0014-3057\(78\)90002-2](https://doi.org/10.1016/0014-3057(78)90002-2) i.f.=1.189
- Várhegyi, G.; Blazsó, M.: Thermal degradation and microstructure of vinyl copolymers. A mathematical model. *Europ. Polym. J.* **1978**, 14, 349-352. doi: [10.1016/0014-3057\(78\)90119-2](https://doi.org/10.1016/0014-3057(78)90119-2) i.f.=1.189
- Várhegyi, G.: Integration of the rate constant and linearization of the kinetic equations in nonisothermal reaction kinetics. *Thermochim. Acta* **1978**, 25, 201-207. doi: [10.1016/0040-6031\(78\)85007-2](https://doi.org/10.1016/0040-6031(78)85007-2) i.f.=0.718
- Várhegyi, G.; Eon, C. H.: Calculation of the free energy equation parameters from ternary liquid-liquid equilibrium data. *Ind. Eng. Chem. Fundam.* **1977**, 16, 182-185. doi: [10.1021/i160062a002](https://doi.org/10.1021/i160062a002) i.f.=0.864
- Várhegyi, G.; Székely, T.: Mathematical modelling of thermal decomposition processes. *J. Thermal Anal.* **1977**, 12, 179-185. doi: [10.1007/BF01909474](https://doi.org/10.1007/BF01909474) i.f.=0.462
- Borosgyevi, E.; Peredy-Kajtár, M.; Várhegyi, G.; Hemela, J.: Polycondensation kinetics. *Angew. Makromol. Chem.* **1976**, 54, 31-48. doi: [10.1002/apmc.1976.050540103](https://doi.org/10.1002/apmc.1976.050540103) i.f.=0.821
- Borosgyevi, E.; Peredy-Kajtár, M.; Várhegyi, G.; Hemela, J.: Polycondensation kinetics - NMR-study of reaction of producing furfuryl alcohol-formaldehyde resins [in Hungarian]. *Magyar Kémiai Folyóirat* **1976**, 82, 367-374. i.f.=0.368
- Székely, T.; Till, F.; Várhegyi, G.: Improved methods for the numerical evaluation of thermogravimetric - mass spectrometric results. *Proc. First Europ. Symp. Thermal Anal.* (Ed.: D. Dollimore) Heyden and Son, London, pp. 33-34, **1976**, i.f.=-
- Várhegyi, G.: Numerical differentiation of experimental data. *Information Processing Letters* **1973**, 2, 24-25. doi: [10.1016/0020-0190\(73\)90022-7](https://doi.org/10.1016/0020-0190(73)90022-7) i.f.= 0.023
- Várhegyi, G.: An alternative computational method to that of Judd. *J. Thermal Anal.* **1973**, 5, 503-504. doi: [10.1007/BF01950241](https://doi.org/10.1007/BF01950241) i.f.~0.506
- Székely, T.; Várhegyi, G.; Till, F.: The determination and use of the second derivative thermogravimetric function and the calculation of the kinetic constants of some decomposition reaction types. *J. Thermal Anal.* **1973**, 5, 227-237. doi: [10.1007/BF01950371](https://doi.org/10.1007/BF01950371) i.f.~0.506
- Várhegyi, G.; Székely, T.: Some new data on the kinetics and mechanism of the thermal degradation of Teflon. *Acta Chim. Acad. Sci. Hung.* **1972**, 73, 172-191. i.f.~0.415