

# Publication List of Dezső Horváth

## Low-Energy Publications

1. A.Ádám, D.Horváth, Á.Kiss, E.Mayr  
„Investigation of short-lived activities in  $^{18}\text{F}$ ,  $^{22}\text{Na}$ ,  $^{40}\text{K}$ ,  $^{85}\text{Rb}$  and  $^{92}\text{Mo}$  excited by 14.7 MeV neutrons”  
**Nucl. Phys. A** 180 (1972) 587–592.
2. D. Horváth, Á. Kiss  
„Spin cut-off factors from (n,2n) reactions for  $N < 50$  nuclei”  
**Acta Phys. Hung.** 31 (1972) 327–333.
3. A. Ádám, D. Horváth, P. Hráskó, Z. Kajcsos, M. Lábady  
„Positron annihilation in a laser radiation field”  
Report KFKI-71-72, Budapest, 1971.
4. Á. Balogh, I. Dézsi, D. Horváth, Z. Kajcsos  
„Positron annihilation in  $\text{Ca}^{2+}$ -doped NaCl single crystals”  
**Phys. Lett. A** 45 (1973) 299–300.
5. D.Horváth, „Simultaneous parameter estimation in the ill-conditioned least squares fitting problem”  
Report KFKI-73-53, Budapest, 1973.
6. D.Horváth, K.Kulcsár, D.L.Nagy, L.Pócs  
„SIRIUS: A program package for nuclear data processing”  
Proc. VIIth Int. Symp. on Nuclear Electronics (Budapest, 1973), JINR, **D-7616**, Dubna, 1974, pp. 224–237.
7. I. Dézsi, D. Horváth, Z. Kajcsos  
„Positron annihilation in amino acids”  
**Chem. Phys. Lett.** 24 (1974) 514–515.
8. Á. Balogh, I. Dézsi, D. Horváth, Z. Kajcsos  
„A pozitron-annihiláció alkalmazása az anyagvizsgálatban”  
**Izotóptechnika** (Budapest) 17 (1974) 473-476.
9. Zs.Kajcsos, I.Dézsi, D.Horváth  
„Positron lifetime measurements in aliphatic hydrocarbons”  
**Applied Phys.** 5 (1974) 53–56.
10. Á.Balogh. I.Dézsi, D.Horváth, Zs.Kajcsos  
„Positron annihilation in ionic crystals”  
**Applied Phys.** 6 (1975) 21–23.
11. A. K. Kachalkin, Z. V. Krumstein, V. I. Petrukhin, V. M. Suvorov, D. Horváth, I. A. Yutlandov  
„Study of hydrogen bond effects on the electron density of the protons in water”  
Report **JINR-R15-10018**, Dubna, 1976 (In Russian).
12. V. A. Vasilyev, V. I. Petrukhin, V. E. Risin, V. M. Suvorov, D. Horváth  
„On the Z-dependence of the atomic capture rate of mesons in matter”  
Report **JINR-R1-10222**, Dubna, 1976 (In Russian).

13. I.Dézi, A.K.Kachalkin, Z.V.Krumstein, B.Molnár, V.I.Petrukhin, V.N.Rybakov, V.M.Suvorov, D.Horváth, I.A.Yutlandov  
„Recent results on negative pion capture in bound hydrogen atoms”  
**Mesons in Matter**, Proc. Int. Symp. on Meson Chemistry and Mesomolecular Processes in Matter (Dubna, 1977), V. N. Pokrovsky, ed., Dubna, 1977, pp. 128–131 (In Russian).
14. V.M.Bystritsky, V.P.Dzhelepov, V.I.Petrukhin, A.I.Rudenko, L.N.Somov, V.M.Suvorov, V.V.Filchenkov, G.Chemnitz, N.N.Khovansky, B.A.Khomenko, D.Horváth  
„Investigation of the temperature dependence of the formation rate of  $dd\mu$  mesic molecules in gaseous deuterium”  
**Mesons in Matter**, Proc. Int. Symp. on Meson Chemistry and Mesomolecular Processes in Matter (Dubna, 1977), V. N. Pokrovsky, ed., Dubna, 1977, pp. 199–205 (In Russian).
15. V. M. Bystritskii, V. P. Dzhelepov, V. I. Petrukhin, A. I. Rudenko, L. N. Somov, V. M. Suvorov, V. V. Filchenkov, G. Chemnitz, N. N. Khovanskii, B. A. Khomenko, D. Horváth  
„Observation of muon transfer in the collisions  $p\mu^- + He$ ”  
**Mesons in Matter**, Proc. Int. Symp. on Meson Chemistry and Mesomolecular Processes in Matter (Dubna, 1977), V. N. Pokrovsky, ed., Dubna, 1977, pp. 220–222 (In Russian).
16. V. M. Bystritskii, V. A. Vasilyev, A. V. Zhelamkov, V. I. Petrukhin, V. E. Risin, V. M. Suvorov, B. A. Khomenko, D. Horváth  
„Pion transfer in mixtures of methane, ethane and ethylene with noble gases and  $CO_2, SF_6$ ”  
**Mesons in Matter**, Proc. Int. Symp. on Meson Chemistry and Mesomolecular Processes in Matter (Dubna, 1977), V. N. Pokrovsky, ed., Dubna, 1977, pp. 223–226 (In Russian).
17. V. M. Bystritskii, G. Chemnitz, V. P. Dzhelepov, V. V. Filchenkov, D. Horváth, B. A. Khomenko, N. N. Khovanskii, V. I. Petrukhin, A. I. Rudenko, L. N. Somov, V. M. Suvorov  
„Results of new investigations of  $\mu$ -atomic processes in gaseous hydrogen”  
7th Int. Conf. **High–Energy Phys. Nucl. Struct.** (Zürich, 1977), paper R-11, Conf. Abstr., p. 363.
18. A.K.Kachalkin, Z.V.Krumshtein, V.I.Petrukhin, V.M.Suvorov, D.Horváth, I.A.Yutlandov  
„Mobility and chemical bond of hydrogen in titanium and palladium hydrides”  
**Zh. Eksp. Teor. Fiz.** 73 (1977) 1675–1678 (In Russian).  
**Sov. Phys. JETP** 46 (1977) 879–881 (Engl. transl.).
19. V.M.Bystritsky, V.P.Dzhelepov, V.I.Petrukhin, A.I.Rudenko, L.N.Somov, V.M.Suvorov, V.V.Filchenkov, G.Chemnitz, N.N.Khovansky, B.A.Khomenko, D.Horváth  
„Resonance dependence of formation rate of  $dd\mu$  mesic molecules in gaseous deuterium”  
**Zh. Eksp. Teor. Fiz.** 76 (1979) 460–469 (In Russian).  
**Sov. Phys. JETP** 49 (1979) 232–237 (Engl. transl.).
20. A.K.Kachalkin, Z.V.Krumstein, A.P.Minkova, V.I.Petrukhin, V.M.Suvorov, D.Horváth, I.A.Yutlandov  
„Investigation of temperature breaking of hydrogen bonds in water by pion capture in hydrogen”  
**Zh. Eksp. Teor. Fiz.** 77 (1979) 26–30 (In Russian).  
**Sov. Phys. JETP** 50 (1979) 12 (Engl. transl.).
21. I. Dézi, Z. V. Krumstein, B. Molnár, V. I. Petrukhin, V. N. Rybakov, V. M. Suvorov, D. Horváth, Z. Cisek, I. A. Yutlandov  
„Investigation of electronic structure changes in water molecules of aquacomplexes by pion capture in hydrogen”  
**Khim. Vys. Energ.** (USSR) 14 (1980) 185–187 (In Russian).  
**High Energy Chem.** 14 (1980) 140 (Engl. transl.).

22. D.Horváth  
 „Chemistry of pionic hydrogen atoms”  
 Invited Lecture, 10th Int. Hot Atom Chemistry Symp., Loughborough, U.K., 1979  
**Radiochimica Acta** 28 (1981) 241–254.
23. Zs.Kajcsos, I.Dézsi, D.Horváth, T.Kemény, L.Marczis, D.L.Nagy  
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24. D. Horváth, V. I. Petrukhin  
 „Negative pion — a new nuclear probe in materials research”  
 Proc. Int. Conf. on Amorphous Systems Investigated by Nuclear Methods (Balatonfüred, Hungary, 1981).  
**Nucl. Instr. Meth.** 199 (1982) 269–271.
25. Zs.Kajcsos, L.Marczis, C.G.Tschakarov, G.G.Gospodinov, D.Horváth, A.Vértes,  
 „Positron annihilation study of the mechano–chemical reaction between Zn + Se and Zn + S”  
 Proc. Int. Conf. on Amorphous Systems Investigated by Nuclear Methods (Balatonfüred, Hungary, 1981).  
**Nucl. Instr. Meth.** 199 (1982) 273–275.
26. J.Mulhem, D.Horváth, B.Molnár, D.L.Nagy  
 „After–effects of electron capture of  $^{57}\text{Co}$  in frozen aqueous solutions of  $^{57}\text{CoCl}_2$ ”  
 Proc. Int. Conf. on Amorphous Systems Investigated by Nuclear Methods (Balatonfüred, Hungary, 1981).  
**Nucl. Instr. Meth.** 199 (1982) 277–279.
27. I.Dézsi, S.Fehér, Gy.Forgács, D. Horváth, E.Kótai, A.Manuaba, G.Mezey, B.Molnár, D.L.Nagy, É. Zsoldos:  
 „Further localization studies of Co atoms diffused into silicon”  
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**Nucl. Instr. Meth.** 199 (1982) 383–386.
28. D.L.Nagy, D.Horváth, G.Ritter, H.Spiering, I.S.Szűcs, U.Volland  
 „Distribution of the ligand field at the  $\text{Fe}^{2+}$  ion in frozen aqueous solutions of  $\text{Fe}(\text{ClO}_4)_2$ ”  
 Proc. Int. Conf. on Amorphous Systems Investigated by Nuclear Methods (Balatonfüred, Hungary, 1981).  
**Nucl. Instr. Meth.** 199 (1982) 223–228.
29. D.Horváth, A.V.Bannikov, A.K.Kachalkin, B.Lévay, V.I.Petrukhin, V.A.Vasilyev, I.A.Yutlandov, I.I.Strakovsky „Temperature breaking of hydrogen bonds in ammonia as studied by  $\pi^-$ –meson capture in hydrogen”  
**Chem. Phys. Lett.** 87 (1982) 504–507.
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 Proc. ICAME’81 (New Delhi, India, 1981), New Delhi, India, 1982, p. 392.
31. D. Horváth, F. Entezami  
 „A comparative test of the models of atomic capture of negative particles using 321 experimental Coulomb–capture ratios”  
 TRIUMF Report **TRI-83-1**, Vancouver, 1983.

32. A.V.Bannikov, B.Lévay, V.I.Petrukhin, V.A.Vasilyev, L.M.Kochenda, A.A.Markov, V.I.Medvedev, G.L.Sokolov, I.I.Strakovsky, D. Horváth  
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**Nucl. Phys. A** 403 (1983) 515–524.
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**Phys. Rev. A** 28 (1983) 2684–2692.
34. D.Horváth, F.Entezami  
 „On the models of Coulomb–capture of negative particles”  
**Nucl. Phys. A** 407 (1983) 297–308.
35. D. Horváth:  
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36. D. Horváth, R.M. Lambrecht  
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 „A comparison of muonic molecule formation rates in HD and  $\text{H}_2 + \text{D}_2$  gases”  
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39. M. D. Hasinoff, C. J. Virtue, H. W. Roser, F. Entezami, K. A. Aniol, B. C. Robertson, D. Horváth  
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**PANIC'84**, Heidelberg, 1984.
40. V.A.Vasilyev, B.Lévay, A.Minkova, V.I.Petrukhin, D.Horváth:  
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**Nucl. Phys. A** 446 (1985) 613–620.
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 „Radiative kaon capture and hyperon weak radiative decay”  
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42. D. Horváth: „On the formation of exotic atoms”  
 Proc. Int. Conf. on Mesons and Light Nuclei, Bechyně Castle, Czechoslovakia, 1985.  
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 „Magnetic field and temperature dependence of the anomalous emission line intensities in  $\text{LiNbO}_3$  : $^{57}\text{Co}$  — initial population and relaxation”  
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44. D. Horváth, D. L. Nagy, K. Vladár:  
 „Mössbauer emission line intensities in the limit of slow relaxation”  
**Hyperfine Interact.** *30* (1986) 297–308.
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