

Dr. Aleš Omerzu – Bibliography (1995 - 2020)

1. Jelovica Badovinac, I., Peter, R., Omerzu, A., Salamon, K., Šarić, I., Samaržija, A., Perčić, M., Kavre Piltaver, I., Ambrožič, G., Petravić, M.
Grain size effect on photocatalytic activity of TiO₂ thin films grown by atomic layer deposition
(2020) *Thin Solid Films*, 709, art. no. 138215, .
2. Peter, R., Salamon, K., Omerzu, A., Grenzer, J., Badovinac, I.J., Saric, I., Petravac, M.
Role of Hydrogen-Related Defects in Photocatalytic Activity of ZnO Films Grown by Atomic Layer Deposition
(2020) *Journal of Physical Chemistry C*, 124 (16), pp. 8861-8868.
3. Omerzu, A., Saric, I., Piltaver, I.K., Petravac, M., Kapun, T., Zule, J., Stifter, S., Salamon, K.
Prevention of spontaneous combustion of cellulose with a thin protective Al₂O₃ coating formed by atomic layer deposition
(2018) *Surface and Coatings Technology*, 333, pp. 81-86.
4. Omerzu, A., Turel, I.
How zinc ions shift and enhance the nucleotide's fluorescence spectra
(2018) *New Journal of Chemistry*, 42 (10), pp. 8145-8150.
5. Omerzu, A., Borovšak, M.
Long-range correlated electron transport in M-DNA
(2016) *Chemical Physics*, 478, pp. 45-47.
6. Strojnik, M., Omerzu, A., Majkić, A., Mihailovic, P.M., Lukan, J., Bavdek, G., Bratina, G., Cvetko, D., Topolovsek, P., Mihailovic, D.
Ionization energy and energy gap structure of MoSI molecular wires: Kelvin probe, ultraviolet photoelectron spectroscopy, and cyclic voltammetry measurements
(2011) *Langmuir*, 27 (8), pp. 4296-4299.
7. Omerzu, A., Anželak, B., Turel, I., Štrancar, J., Potočnik, A., Arčon, D., Arčon, I., Mihailović, D., Matsui, H.
Strong correlations in highly electron-doped Zn(II)-DNA complexes
(2010) *Physical Review Letters*, 104 (15), art. no. 156804, .
8. Omerzu, A., Mihailović, D., Anelak, B., Turel, I.
Optical spectra of wet and dry M -DNA
(2007) *Physical Review B - Condensed Matter and Materials Physics*, 75 (12), art. no. 121103, .
9. Omerzu, A., Tokumoto, M.
Magnetism of Fullerene Charge-transfer Complexes
(2006) *Carbon Based Magnetism*, pp. 229-244.
10. Mizoguchi, K., Takei, M., Sakamoto, H., Kawamoto, T., Tokumoto, M., Omerzu, A., Mihailovic, D.
Uniaxial strain study in purely organic ferromagnet α -TDAE-C 60 - Mechanism and structure
(2005) *Polyhedron*, 24 (16-17), pp. 2173-2175.

11. Rangus, M., Omerzu, A., Mrzel, A., Vengust, D., Mihailovic, D.D.
Magnetic properties of nanometer-sized particles of the superconductor Mo₆S₆I₂
(2005) AIP Conference Proceedings, 786, pp. 378-381.
12. Blinc, R., Jeglič, P., Apih, T., Cevc, P., Omerzu, A., Arčon, D.
Magnetic properties of TDAE-C70
(2005) AIP Conference Proceedings, 786, pp. 29-32.
13. Omerzu, A., Licer, M., Mertelj, T., Kabanov, V.V., Mihailovic, D.
Hole interactions with molecular vibrations on DNA
(2004) Physical Review Letters, 93 (21), art. no. 218101, .
14. Arčon, D., Jeglič, P., Apih, T., Omerzu, A., Blinc, R.
Jahn-Teller effect in the organic ferromagnet TDAE-C60
(2004) Carbon, 42 (5-6), pp. 1175-1178.
15. Arčon, D., Jeglič, P., Apih, T., Omerzu, A., Blinc, R.
Belt-like C60- electron spin density distribution in the organic ferromagnet TDAE-C60
(2004) Journal of Magnetism and Magnetic Materials, 272-276, pp. 1048-1049.
16. Mizoguchi, K., Takei, M., Machino, M., Sakamoto, H., Tokumoto, M., Kawamoto, T., Omerzu, A., Mihailovic, D.
Magnetism of α - and β -TDAE-C60
(2004) Journal of Magnetism and Magnetic Materials, 272-276 (SUPPL. 1), pp. e215-e216.
17. Mihailovic, D., Jaglicic, Z., Dominko, R., Omerzu, A., Mrzel, A.
Giant paramagnetism in Li-doped Mo-S nanostructures
(2004) Journal of Physics and Chemistry of Solids, 65 (4), pp. 707-711.
<https://www.scopus.com/inward/record.uri?eid=2-s2.0->
18. Jeglič, P., Blinc, R., Apih, T., Omerzu, A., Arčon, D.
Jahn-Teller dynamics of the organic ferromagnet-tetrakis(dimethylamine) ethylene-C60
(2003) Physical Review B - Condensed Matter and Materials Physics, 68 (18), 8 p.
19. Blundell, S.J., Pratt, F.L., Lancaster, T., Marshall, I.M., Steer, C.A., Heath, S.L., Létard, J.-F., Sugano, T., Mihailovic, D., Omerzu, A.
 μ SR studies of organic and molecular magnets
(2003) Polyhedron, 22 (14-17), pp. 1973-1980.
20. Lancaster, T., Steer, C.A., Blundell, S.J., Pratt, F.L., Hayes, W., Omerzu, A., Mihailovic, D.
A μ +SR study of ferromagnetic exchange in the fullerene charge transfer salt TDAE-C60
(2003) Synthetic Metals, 137 (1-3), pp. 1251-1252.
21. Mizoguchi, K., Kobayashi, S., Machino, M., Sakamoto, H., Kawamoto, T., Tokumoto, M., Kosaka, M., Tanigaki, K., Omerzu, A., Mihailovic, D.
Electronic states in magnetic fullerenes studied by ESR under pressure
(2003) Synthetic Metals, 133-134, pp. 695-696.
22. Omerzu, A., Arcon, D., Blinc, R., Mihailovic, D.
Magnetism in TDAE-C 60
(2003) Magnetism: Molecules to Materials, 2-5, pp. 123-147.
23. Blinc, R., Apih, T., Jeglič, P., Arčon, D., Dolinšek, J., Mihailovič, D., Omerzu, A.

Transition to inhomogeneous ferromagnetic state in TDAE-C60 at low temperatures
(2002) Europhysics Letters, 57 (1), pp. 80-85.

24. Narymbetov, B., Omerzu, A., Kabanov, V., Tokumoto, M., Kobayashi, H., Mihailovic, D.
C60 molecular configurations leading to ferromagnetic exchange interactions in TDAE*C60
(2002) Physics of the Solid State, 44 (3), pp. 437-440.
25. Blinc, R., Jeglič, P., Apih, T., Seliger, J., Arčon, D., Omerzu, A.
Beltlike C60- electron spin density distribution in the organic ferromagnet TDAE-C60
(2002) Physical Review Letters, 88 (8), art. no. 086402, pp. 086402/1-086402/4.
26. Blinc, R., Jeglič, P., Apih, T., Seliger, J., Arčon, D., Omerzu, A.
Beltlike [Formula presented] Electron Spin Density Distribution in the Organic Ferromagnet TDAE-
[Formula presented]
(2002) Physical Review Letters, 88 (8), p. 4.
27. Omerzu, A., Tokumoto, M., Tadić, B., Mihailovic, D.
Critical exponents at the ferromagnetic transition in tetrakis(dimethylamino)ethylene-C60 (TDAE-
C60)
(2001) Physical Review Letters, 87 (17), art. no. 177205, pp. 1772051-1772054.
28. Narymbetov, B., Omerzu, A., Kabanov, V.V., Tokumoto, M., Kobayashi, H., Mihailovic, D.
C60 molecular configurations leading to ferromagnetic exchange interactions in TDAE - C60
(2001) AIP Conference Proceedings, 590, pp. 321-324.
29. Mizoguchi, K., Machino, M., Sakamoto, H., Kawamoto, T., Tokumoto, M., Omerzu, A., Mihailovic, D.
Magnetic properties of TDAE - C60 under pressure
(2001) AIP Conference Proceedings, 590, pp. 381-384.
30. Omerzu, A., Mijatovic, D., Mihailovic, D.
Revealing of the re-entrant spin-glass phase in TDAE-C60 with linear and non-linear AC susceptibility
measurements
(2001) Synthetic Metals, 121 (1-3), pp. 1155-1156.
31. Mizoguchi, K., Machino, M., Sakamoto, H., Tokumoto, M., Kawamoto, T., Omerzu, A., Mihailovic, D.
Mechanism of ferromagnetism in TDAE-C60 : ESR study under pressure
(2001) Synthetic Metals, 121 (1-3), pp. 1778-1779.
32. Mizoguchi, K., Machino, M., Sakamoto, H., Kawamoto, T., Tokumoto, M., Omerzu, A., Mihailovic, D.
Pressure effect in TDAE-C60 ferromagnet: Mechanism and polymerization
(2001) Physical Review B - Condensed Matter and Materials Physics, 63 (14), art. no. 140417, pp.
1404171-1404174.
33. Narymbetov, B., Omerzu, A., Kabanov, V.V., Tokumoto, M., Kobayashi, H., Mihailovic, D.
Origin of ferromagnetic exchange interactions in a fullerene-organic compound
(2000) Nature, 407 (6806), pp. 883-885.
34. Umek, P., Omerzu, A., Mihailovi, D., Tokumoto, M.
Synthesis and magnetic characterisation of fullerene derivative based ferromagnets 1-(3-nitro)- and
1-(3-aminophenyl)-1H-methanofullerene doped with cobaltocene
(2000) Chemical Physics, 253 (2-3), pp. 361-366.

35. Omerzu, A., Mihailovic, D., Tokumoto, M.
Macroscopic magnetic measurements on the nonferromagnetic modification of TDAE
(2000) *Physical Review B - Condensed Matter and Materials Physics*, 61 (18), pp. R11883-R11885.
36. Mrzel, A., Mertelj, A., Omerzu, A., Čopič, M., Mihailovic, D.
Investigation of encapsulation and solvatochromism of fullerenes in binary solvent mixtures
(1999) *Journal of Physical Chemistry B*, 103 (51), pp. 11256-11260.
37. Narymbetov, B., Kobayashi, H., Tokumoto, M., Omerzu, A., Mihailovic, D.
Low temperature structural analysis of a TDAE-C60 crystal
(1999) *Chemical Communications*, (16), pp. 1511-1512.
38. Tokumoto, M., Tsubaki, Y., Pokhodnya, K., Omerzu, A., Uchida, T., Mihailovic, D.
Direct observation of spontaneous magnetization in TDAE-C60
(1999) *Synthetic Metals*, 103 (1-3), pp. 2316-2317.
39. Arčon, D., Blinc, R., Mihailovič, D., Omerzu, A., Cevc, P.
Singlet-triplet energy gap in the non-ferromagnetic (α') modification of TDAE-C60
(1999) *Europhysics Letters*, 46 (5), pp. 667-670.
40. Jagličič, Z., Lužnik, J., Pirnat, J., Trontelj, Z., Omerzu, A., Mihailovic, D.
Magnetism in some charge donor - C60 compounds: SQUID measurements and model studies
(1999) *Journal of Magnetism and Magnetic Materials*, 196, pp. 576-577.
41. Pokhodnia, K.I., Papavassiliou, J., Umek, P., Omerzu, A., Mihailovič, D.
A structural and infrared study of the charge states of tetrakis (dimethylamino)ethylene (TDAE) in TDAE-C60 and (TDAE)(Cl)₂
(1999) *Journal of Chemical Physics*, 110 (7), pp. 3606-3611.
42. Arčon, D., Blinc, R., Cevc, P., Omerzu, A.
Evidence for (formula presented)-type spin pairing in the nonferromagnetic modification of (formula presented)
(1999) *Physical Review B - Condensed Matter and Materials Physics*, 59 (7), pp. 5247-5251.
43. Mihailovic, D., Mrzel, A., Omerzu, A., Umek, P., Jaglicic, Z., Trontelj, Z.
Ferromagnetism below 19 K Due to Unpaired Spins on Fullerene Molecules
(1999) *Molecular Crystals and Liquid Crystals Science and Technology Section A: Molecular Crystals and Liquid Crystals*, 334, pp. 415-424.
44. Vuletić, T., Herman, D., Biškup, N., Pinterić, M., Omerzu, A., Tomić, S., Nagasawa, M.
Single-particle and spin-density wave charge dynamics in (TMTSF)₂PF₆ and (TMTSF)₂AsF₆: A comparative overview
(1999) *Journal De Physique. IV : JP*, 9 (10), pp. Pr10-275-Pr10-277.
45. Jagličič, Z., Lužnik, J., Pirnat, J., Trontelj, Z., Mihailovic, D., Mrzel, A., Omerzu, A.
Ferromagnetic Behaviour of TDAE-C60 Samples Studied with a SQUID Magnetometer
(1999) *Molecular Crystals and Liquid Crystals Science and Technology Section A: Molecular Crystals and Liquid Crystals*, 334, pp. 469-475.
46. Arčon, D., Cevc, P., Omerzu, A., Blinc, R.
Ferromagnetic resonance in TDAE- C60
(1998) *Physical Review Letters*, 80 (7), pp. 1529-1532.

47. Mrzel, A., Umek, P., Cevc, P., Omerzu, A., Mihailovic, D.
Magnetic ordering at 20 K and below in the C60 and C70 based fullerene salts
(1998) Carbon, 36 (5-6), pp. 603-606.
<https://www.scopus.com/inward/record.uri?eid=2-s2.0->
48. Mrzel, A., Omerzu, A., Umek, P., Mihailovic, D., Jagličić, Z., Trontelj, Z.
Ferromagnetism in a cobaltocene-doped fullerene derivative below 19 K due to unpaired spins only on fullerene molecules
(1998) Chemical Physics Letters, 298 (4-6), pp. 329-334.
49. Blinc, R., Cevc, P., Arčon, D., Omerzu, A., Mehring, M., Knorr, S., Grupp, A.
High-field ESR
(1998) Physical Review B - Condensed Matter and Materials Physics, 58 (21), pp. 14416-14423.
50. Tomić, S., Biškup, N., Omerzu, A.
Low frequency dielectric relaxation of spin density wave in the Bechgaard salt (TMTSF)2PF6
(1997) Synthetic Metals, 85 (1-3), pp. 1597-1598.
51. Omerzu, A., Mihailovic, D., Biskup, N., Milat, O., Tomic, S.
Electrical transport measurements on TDAE-C60 single crystals
(1997) Synthetic Metals, 85 (1-3), pp. 1723-1724.
52. Pokhodnia, K., Demsar, J., Omerzu, A., Mihailovic, D., Kuzmany, H.
Low temperature Raman spectra on TDAE-C60 single crystals
(1997) Synthetic Metals, 85 (1-3), pp. 1749-1750.
53. Tokumoto, M., Song, Y.S., Tanaka, K., Sato, T., Yamabe, T., Omerzu, A., Pokhodnia, K., Mihailovic, D.
Magnetic properties of powder and crystalline TDAE-C60
(1997) Synthetic Metals, 86 (1-3), pp. 2315-2316.
54. Pokhodnia, K., Demsar, J., Omerzu, A., Mihailovic, D., Kuzmany, H.
Raman spectra on TDAE single crystals
(1997) Physical Review B - Condensed Matter and Materials Physics, 55 (6), pp. 3757-3762.
55. Tokumoto, M., Tsubaki, Y., Pokhodnya, K., Sakakibara, Y., Omerzu, A., Mihailovic, D., Uchida, T.
Magnetic properties of organic ferromagnetic TDAE-C60 single crystals and thin films
(1997) Materials Research Society Symposium - Proceedings, 488, pp. 477-482.
56. Mrzel, A., Cevc, P., Omerzu, A., Mihailovic, D.
Interplay between antiferromagnetic and ferromagnetic phases of TDAE: An ESR study of high-temperature annealed samples
(1996) Physical Review B - Condensed Matter and Materials Physics, 53 (6), pp. R2922-R2925.
57. Omerzu, A., Mihailovic, D., Tomic, S., Milat, O., Biskup, N.
Electrical conductivity in dynamically orientationally disordered systems: Ac and dc measurements in ferromagnetic single crystals of TDAE-C60
(1996) Physical Review Letters, 77 (10), pp. 2045-2048.
58. Blinc, R., Arčon, D., Cevc, P., Mihailović, D., Omerzu, A.
Magnetic resonance of the weak organic magnet TDAE-C60
(1996) Applied Magnetic Resonance, 11 (2), pp. 203-228.

59. Arčon, D., Dolinšek, J., Blinc, R., Pokhodnia, K., Omerzu, A., Mihailović, D., Venturini, P.
Proton NMR in a TDAE single crystal
(1996) *Physical Review B - Condensed Matter and Materials Physics*, 53 (21), pp. 14028-14031.
60. Mihailovic, D., Pokhodnya, K., Omerzu, A., Venturini, P., Blinc, R., Cevc, P., Pratt, F., Chow, K.H.
Ferromagnetic and merohedral ordering in powder and crystalline tetrakis (dimethylamino) ethylene (TDAE)-C60
(1996) *Synthetic Metals*, 77 (1-3), pp. 281-285.
61. Blinc, R., Pokhodnia, K., Cevc, P., Arčon, D., Omerzu, A., Mihailović, D., Venturini, P., Trontelj, Z., Lužnik, J., Jegličič, Z., Pirnat, J.
Antiferromagnetic Correlations and Weak Ferromagnetism in a TDAE+ – C-60 Single Crystal
(1996) *Physical Review Letters*, 76 (3), pp. 523-526.
62. Mihailovic, D., Arcon, D., Venturini, P., Blinc, R., Omerzu, A., Cevc, P.
Orientational and magnetic ordering of buckyballs in TDAE-C60
(1995) *Science*, 268 (5209), pp. 400-402.