

List of Publications- Dr U Narendra Kumar

1. Priya, G., Madhan, B., **Narendrakumar, U.**, Suresh Kumar, R.V. and Manjubala, I., In Vitro and In Vivo Evaluation of Carboxymethyl Cellulose Scaffolds for Bone Tissue Engineering Applications. *ACS Omega*.
2. Soman, S.M., Rekha, C.R.P., Santhakumar, H., **Narendrakumar, U.** and Jayasree, R.S., 2020. Semi-Supervised Nonnegative Matrix Factorization of Wide-Field Fluorescence Microscopic Images for Tissue Diagnosis. *Microscopy and Microanalysis*, 26(3), pp.419-428.
3. Aswathy, S.H., **Narendrakumar, U.** and Manjubala, I., 2020. Commercial hydrogels for biomedical applications. *Heliyon*, 6(4), p.e03719.
4. Priya, G., **Narendrakumar, U.** and Manjubala, I., 2019. Thermal behavior of carboxymethyl cellulose in the presence of polycarboxylic acid crosslinkers. *Journal of Thermal Analysis and Calorimetry*, 138(1), pp.89-95.
5. Priya, G., Anitha, R., Akila, R., **Kumar, U.N.** and Manjubala, I., 2019. Biofilm formation by *S. aureus* on composite scaffolds—A qualitative and quantitative in vitro analysis. *Materials Today: Proceedings*, 15, pp.217-223.
6. **NarendraKumar, U.**, Mathew, A.T., Iyer, N., Rahman, F. and Manjubala, I., 2018. A 3D finite element analysis of dental implants with varying thread angles. *Materials Today: Proceedings*, 5(5), pp.11900-11905.
7. Manjubala, I., Basu, P. and **Narendrakumar, U.**, 2018. In situ synthesis of hydroxyapatite/carboxymethyl cellulose composites for bone regeneration applications. *Colloid and Polymer Science*, 296(10), pp.1729-1737.
8. Basu, P., **Narendrakumar, U.**, Arunachalam, R., Devi, S. and Manjubala, I., 2018. Characterization and evaluation of carboxymethyl cellulose-based films for healing of full-thickness wounds in normal and diabetic rats. *ACS omega*, 3(10), pp.12622-12632.
9. Dey, S., Saha, T. and **Narendrakumar, U.**, 2017, November. Analysis of Urine as Indicators of Specific Body Conditions. In *IOP Conference Series: Materials Science and Engineering* (Vol. 263, No. 2, p. 022051). IOP Publishing.
10. Basu, P., Repanas, A., Chatterjee, A., Glasmacher, B., **NarendraKumar, U.** and Manjubala, I., 2017. PEO–CMC blend nanofibers fabrication by electrospinning for soft tissue engineering applications. *Materials Letters*, 195, pp.10-13.
11. Basu, P., **Kumar, U.N.** and Manjubala, I., 2017. Wound healing materials—a perspective for skin tissue engineering. *Current Science*, pp.2392-2404.
12. Verma, S., Manjubala, I. and **Narendrakumar, U.**, 2016. Protein and carbohydrate biopolymers for biomedical applications. *Int J PharmTech Res*, 9(8), pp.408-421.
13. P. Ganesan, A. P. Barhanpurkar, M. R. Wani, **U. Narendra Kumar**, and I. Manjubala,, Fabrication of cellulose based scaffolds for bone regeneration application," International, Journal of ChemTech Research, vol. 9, pp. 603-606, 2016.

14. Ayyapan, M., **Uttamchand, N.K.** and Rajan, R.A.A., 2016. Mechanical and wear properties of copper-lead alloy prepared by powder metallurgy processing technique. *Journal of Chemical Technology and Metallurgy*, 51(6), pp.726-734.
15. Arkin, V.H., Lakhera, M., Manjubala, I. and **Narendra Kumar, U.**, 2015. Solid state synthesis and characterization of calcium phosphate for biomedical application. *Int. J. Chem. Tech. Res*, 8, pp.264-267.
16. Nöchel, U., **Kumar, U.N.**, Wang, K., Kratz, K., Behl, M. and Lendlein, A., 2014. Macromol. Chem. Phys. 24/2014. *Macromolecular Chemistry and Physics*, 215(24), pp.2393-2393.
17. Nöchel, U., **Kumar, U.N.**, Wang, K., Kratz, K., Behl, M. and Lendlein, A., 2014. Triple-Shape Effect with Adjustable Switching Temperatures in Crosslinked Poly [ethylene-co-(vinyl acetate)]. *Macromolecular Chemistry and Physics*, 215(24), pp.2446-2456.
18. Lendlein, A., **Uttamchand, N.K.**, Kratz, K. and Behl, M., Helmholtz Zentrum Geesthacht Zentrum fuer Material und Küstenforschung GmbH, 2014. *Method for restoring an article comprising a shape memory composite material*. U.S. Patent 8,697,835.
19. Basu, P., Sharan, B.S., **Kumar, U.N.** and Manjubala, I., 2014. Polymer ceramic composite for bone regeneration application. *Int J Chem Tech Res*, 16, pp.4038-4041.
20. Nöchel, U., Reddy, C.S., **Uttamchand, N.K.**, Kratz, K., Behl, M. and Lendlein, A., 2013. Shape-memory properties of hydrogels having a poly (ϵ -caprolactone) crosslinker and switching segment in an aqueous environment. *European polymer journal*, 49(9), pp.2457-2466.
21. Kratz, K., **Kumar, U.N.**, Nöchel, U. and Lendlein, A., 2012. Thermal Properties and Crystallinity of Grafted Copolymer Networks containing a Crystallizable Poly (ϵ -caprolactone) Crosslinker in an aqueous environment. *MRS Online Proceedings Library*, 1403(1), pp.7-12.
22. **Kumar, U.N.**, Kratz, K., Behl, M. and Lendlein, A., 2012. Shape-memory properties of magnetically active triple-shape nanocomposites based on a grafted polymer network with two crystallizable switching segments. *Express Polymer Letters*, 6(1).
23. **Uttamchand, N.K.**, 2012. Shape-memory properties of magnetically active composites based on multiphase polymer networks.

24. **Kumar, U.N.**, Kratz, K., Heuchel, M., Behl, M. and Lendlein, A., 2011. Shape-Memory Nanocomposites with Magnetically Adjustable Apparent Switching Temperatures. *Advanced Materials*, 23(36), pp.4157-4162.
25. Kratz, K., **Narendra Kumar, U.** and Lendlein, A., 2011, January. Triple shape properties of magneto sensitive nanocomposites determined in tensile tests. In *Proceedings of 18th International Conference on Composite Materials, Jeju, Korea* (pp. 1-5).
26. Wagermaier, W., Zander, T., Hofmann, D., Kratz, K., **Narendra Kumar, U.** and Lendlein, A., 2010. In Situ X-Ray Scattering Studies of Poly (ϵ -caprolactone) Networks with Grafted Poly (ethylene glycol) Chains to Investigate Structural Changes during Dual-and Triple-Shape Effect. *Macromolecular rapid communications*, 31(17), pp.1546-1553.
27. **Kumar, U.N.**, Kratz, K., Wagermaier, W., Behl, M. and Lendlein, A., 2010. Non-contact actuation of triple-shape effect in multiphase polymer network nanocomposites in alternating magnetic field. *Journal of Materials Chemistry*, 20(17), pp.3404-3415.
28. **Uttamchand, N.K.**, Kratz, K., Behl, M. and Lendlein, A., 2009. Triple-shape capability of thermo-sensitive nanocomposites from multiphase polymer networks and magnetic nanoparticles. *MRS Online Proceedings Library Archive*, 1190.