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a polymers & coatings consulting company

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Dr. Kanga's Patent Portfolio (US)

- Polymer Reinforced Composite Plywood and Laminates, US 10259199 B2 (Issued: 04/16/2019), US 9688056 B2 (06/27/2017)
- Water-borne antimicrobial formulations with hydrogen peroxide, US 9999226 B2 (06/19/2018)
- Durable antimicrobial treatments for textiles and other substrates, US 9986742 B2 (06/05/2018)
- Regeneration of antimicrobial coatings containing metal derivatives upon exposure to vapor-phase hydrogen peroxide, US 9808548 B2 (11/07/2017)
- Regeneration of Antimicrobial Coatings Containing Metal Derivatives Upon Exposure to Aqueous Hydrogen Peroxide, US 9549547 B2 (01/24/2017)
- Non-Attenuating Light Collimating Articles for Graphic Arts, US 8867135 B2 (10-21-2014), US 8,441,730 B2 (05-14-2013)
- Laser Engravable Flexographic Printing Articles Based On Millable Polyurethanes, And Method, US 8748082 B2 (06/10/2014), US 8501390 B2 (08-06-2013)
- Disinfectant with Durable Activity Based on Alcohol-Soluble Quaternary Ammonium Polymers and Copolymers, US 8,343,523 (01-01-2013)
- Method of Forming Photosensitive Printing Sleeves, EP1709488 (11-02-2011)
- Processless Digitally Imaged Photopolymer Elements using Microspheres, US 6,989,220 (1-24-2006), US 6,806,018 (10-19-2004)
- Printing Sleeve with an Integrated Printing Surface, US 6,966,259 (11-22-2005)
- Laser Imaged Printing Plates, US 6,916,596 (7-12-2005), US 6,756,181 (6-29-2004)
- UV-absorbing Support Layers and Flexographic Printing Elements Comprising the Same, US 6,413,699 (7-2-2002), US RE 39835 E (9-11-2007)
- Laser Imaged Printing Plate Comprising a Multi-layer Slip Film, US 6,367,381 (4-9-2002)

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- Method Of Making Laser Imaged Printing Plates Utilizing Ultraviolet Absorbing Layer, US 5,925,500 (7-20-1999)
- Multiblock Copolymers for Flexographic Printing Plates, US 5,304,458 (4-19-1994)
- Photosensitive Elastomer Polymer Compositions for Flexographic Printing Plates US 5,550,005 (8-27-1996), US 5,344,743 (9-6-1994), US 5,290,662 (3-1-1994)

Dr. Kanga Publications AT&T Bell Labs, University of Florida

1. "Effects of Post Exposure Delay in Positive Chemically Amplified Resists: An Analytical Study", O. Nalamasu, E. Reichmanis, J. E. Hanson, R. S. Kanga, L. A. Heimbrook, A. B. Emerson, F. A. Baiocchi and S. Vaidya, *Polym. Eng. and Sci.*, **32**(21), 1565 (1992).
2. "Synthesis and Characterization of Poly (4-t-butoxycarbonyloxystyrene-sulfone)," R. S. Kanga, J. M. Kometani, E. Reichmanis, J. E. Hanson, O. Nalamasu, L. F. Thompson, S. A. Heffner, W. W. Tai, P. Trevor, *Chem. Mater.*, **3**, 660 (1991). (<https://pubs.acs.org/doi/abs/10.1021/cm00016a019>)
3. "Effect of Post-exposure Delay in Positive Acting Chemically Amplified Resists: An Analytical Study," Nalamasu et al., Proc. SPE Conf., Allenville, NY, 225 (1991).
4. "Chemistry and Processes for Deep-UV Lithography: Materials for Chemically Amplified Resists", E. Reichmanis, L. F. Thompson, F. M. Houlihan, T. X. Neenan, J. M. Kometani, R. S. Kanga, O. Nalamasu, *Polymers for Microelectronics - Science and Technology*, Kodansha, Tokyo, 1990, p 387.
5. "Synthesis and Lithographic Characterization of Poly(4-t-butoxycarbonyloxystyrene-sulfone)", J. M. Kometani, O. Nalamasu, E. Reichmanis, R. S. Kanga, L. F. Thompson, S. A. Heffner, *J. Vac. Sci. Technol. B*, **8** (6), 1428 (1990).
6. "Characterization of Novel Sulfonic Acid Photogenerating 2-Nitrobenzyl Ester Derivatives", F. M. Houlihan, T. X. Neenan, E. Reichmanis, J. M. Kometani, L. F. Thompson, T. Chin, R. S. Kanga, *J. Vac. Sci. Technol B*, **8** (6), 1461 (1990).
7. "Studies of the anionic polymerization of phenyl vinyl sulfoxide and its copolymer with styrene", Kanga R S, Hogen-Esch T E, Randrianalimanana E, Soum A, Fontanille M, *Macromolecules*. **23**: 4235-4240.
8. "Thermal elimination of poly(phenyl vinyl sulfoxide) and its polystyrene block copolymers", Kanga R S, Hogen-Esch T E, Randrianalimanana E, Soum A, Fontanille M, *Macromolecules*. **23**: 4241-4246.