

REFERENCES

- Abdullayev, E.; Abbasov, V.; Tursunbayeva, A.; Portnov, V.; Ibrahimov, H.; Mukhtarova, G.; Lvov, Y., Self-Healing Coatings Based on Halloysite Clay Polymer Composites for Protection of Copper Alloys. *ACS Applied Materials & Interfaces* 2013, 5 (10), 4464-4471.
- Alexandre, M.; Dubois, P., Polymer-layered silicate nanocomposites: preparation, properties and uses of a new class of materials. *Materials Science and Engineering: R: Reports* 2000, 28 (1), 1-63.
- Arioli, R.; Gonçalves, O. H.; Castellares, L. G.; da Costa, J. M.; Araújo, P. H.; Machado, R.; Bolzan, A., Effect of Foster Swelling Degree in Polystyrene/Clay Nanocomposites Obtained by In Situ Incorporation. *Macromolecular Symposia* 2006, 245-246 (1), 337-342.
- Arroyo, M.; Lopez-Manchado, M.; Herrero, B., Organo-montmorillonite as substitute of carbon black in natural rubber compounds. *Polymer* 2003, 44 (8), 2447-2453.
- Becker, O.; Varley, R. J.; Simon, G. P., Thermal stability and water uptake of high performance epoxy layered silicate nanocomposites. *European Polymer Journal* 2004, 40 (1), 187-195.
- Bellomo, E. G.; Wyrsta, M. D.; Pakstis, L.; Pochan, D. J.; Deming, T. J., Stimuli-responsive polypeptide vesicles by conformation-specific assembly. *Nat Mater* 2004, 3 (4), 244-248.
- Bergaya, F.; Lagaly, G., Chapter 1 General Introduction: Clays, Clay Minerals, and Clay Science. In *Developments in Clay Science*, Faïza Bergaya, B. K. G. T.; Gerhard, L., Eds. Elsevier: 2006, pp 1-18.

Beyer, F. L.; Beck Tan, N. C.; Dasgupta, A.; Galvin, M. E., Polymer- Layered Silicate Nanocomposites from Model Surfactants. *Chemistry of materials* 2002, 14 (7), 2983-2988.

Beyer, G., Nanocomposites: a new class of flame retardants for polymers. *Plastics, Additives and Compounding* 2002, 4 (10), 22-28.

Bindu Sharmila, T. K.; Ayswarya, E. P.; Abraham, B. T.; Sabura Begum, P. M.; Thachil, E. T., Fabrication of partially exfoliated and disordered intercalated cloisite epoxy nanocomposites via in situ polymerization: Mechanical, dynamic mechanical, thermal and barrier properties. *Applied Clay Science* 2014, 102, 220-230.

Biswas, M.; Ray, S. S., Recent Progress in Synthesis and Evaluation of Polymer-Montmorillonite Nanocomposites. In *New Polymerization Techniques and Synthetic Methodologies*, Springer Berlin Heidelberg: Berlin, Heidelberg, 2001, pp 167-221.

Blumstein, A., Polymerization of adsorbed monolayers. II. Thermal degradation of the inserted polymer. *Journal of Polymer Science Part A: General Papers* 1965, 3 (7), 2665-2672.

Borisova, D.; Möhwald, H.; Shchukin, D. G., Influence of Embedded Nanocontainers on the Efficiency of Active Anticorrosive Coatings for Aluminum Alloys Part I: Influence of Nanocontainer Concentration. *ACS Applied Materials & Interfaces* 2012, 4 (6), 2931-2939.

Bottino, F. A.; Fabbri, E.; Fragalà, I. L.; Malandrino, G.; Orestano, A.; Pilati, F.; Pollicino, A., Polystyrene-Clay Nanocomposites Prepared with Polymerizable Imidazolium Surfactants. *Macromolecular rapid communications* 2003, 24 (18), 1079-1084.

Bunz, U. H. F., Breath figures as a dynamic templating method for polymers and nanomaterials. *Advanced Materials* 2006, 18 (8), 973-989.

Burnside, S. D.; Giannelis, E. P., Synthesis and properties of new poly(dimethylsiloxane) nanocomposites. *Chemistry of Materials* 1995, 7 (9), 1597-1600.

Camalet, J.; Lacroix, J.; Aeiyach, S.; Chane-Ching, K.; Lacaze, P., Electrodeposition of protective polyaniline films on mild steel. *Journal of Electroanalytical Chemistry* 1996, 416 (1-2), 179-182.

Carastan, D. J.; Demarquette, N. R., Polystyrene/clay nanocomposites. *International Materials Reviews* 2007, 52 (6), 345-380.

Caruso, R. A.; Susha, A.; Caruso, F., Multilayered Titania, Silica, and Laponite Nanoparticle Coatings on Polystyrene Colloidal Templates and Resulting Inorganic Hollow Spheres. *Chemistry of Materials* 2001, 13 (2), 400-409.

Carvalho, J. W. C.; Sarantópoulos, C.; Innocentini-Mei, L. H., Nanocomposites-based polyolefins as alternative to improve barrier properties. *Journal of Applied Polymer Science* 2010, 118 (6), 3695-3700.

Chan, C.-M.; Wu, J.; Li, J.-X.; Cheung, Y.-K., Polypropylene/calcium carbonate nanocomposites. *Polymer* 2002, 43 (10), 2981-2992.

Chang, K.-C.; Chen, S.-T.; Lin, H.-F.; Lin, C.-Y.; Huang, H.-H.; Yeh, J.-M.; Yu, Y.-H., Effect of clay on the corrosion protection efficiency of PMMA/Na⁺-MMT clay nanocomposite coatings evaluated by electrochemical measurements. *European Polymer Journal* 2008, 44 (1), 13-23.

Chang, K.-C.; Jang, G.-W.; Peng, C.-W.; Lin, C.-Y.; Shieh, J.-C.; Yeh, J.-M.; Yang, J.-C.; Li, W.-T., Comparatively electrochemical studies at different operational temperatures for the effect of nanoclay platelets on the anticorrosion efficiency of DBSA-doped polyaniline/Na⁺-MMT clay nanocomposite coatings. *Electrochimica Acta* 2007, 52 (16), 5191-5200.

Chang, K.-C.; Lai, M.-C.; Peng, C.-W.; Chen, Y.-T.; Yeh, J.-M.; Lin, C.-L.; Yang, J.-C., Comparative studies on the corrosion protection effect of DBSA-doped polyaniline prepared from in situ emulsion polymerization in the presence

of hydrophilic Na⁺-MMT and organophilic organo-MMT clay platelets. *Electrochimica Acta* 2006, 51 (26), 5645-5653.

Chang, K.-C.; Lai, M.-C.; Peng, C.-W.; Huang, H.-H.; Fan, T.-H.; Yeh, J.-M.; Chou, Y.-C., Comparatively Electrochemical Studies at Different Operational Temperatures for the Effect of Layered Silicate and Spherical Silica on the Anticorrosion Efficiency of PANI Nanocomposite Coatings. *Journal of Nanoscience and Nanotechnology* 2011, 11 (2), 1123-1134.

Chang, K.-C.; Lu, H.-I.; Peng, C.-W.; Lai, M.-C.; Hsu, S.-C.; Hsu, M.-H.; Tsai, Y.-K.; Chang, C.-H.; Hung, W.-I.; Wei, Y.; Yeh, J.-M., Nanocasting Technique to Prepare Lotus-leaf-like Superhydrophobic Electroactive Polyimide as Advanced Anticorrosive Coatings. *ACS Applied Materials & Interfaces* 2013, 5 (4), 1460-1467.

Chen, B., Polymer-clay nanocomposites: an overview with emphasis on interaction mechanisms. *British Ceramic Transactions* 2004, 103 (6), 241-249.

Chen, F.; Liu, P., Conducting Polyaniline Nanoparticles and Their Dispersion for Waterborne Corrosion Protection Coatings. *ACS Applied Materials & Interfaces* 2011, 3 (7), 2694-2702.

Chigwada, G.; Wang, D.; Jiang, D. D.; Wilkie, C. A., Styrenic nanocomposites prepared using a novel biphenyl-containing modified clay. *Polymer Degradation and Stability* 2006, 91 (4), 755-762.

Chiu, C.-W.; Lin, J.-J., Self-assembly behavior of polymer-assisted clays. *Progress in Polymer Science* 2012, 37 (3), 406-444.

Cho, J.; Paul, D., Nylon 6 nanocomposites by melt compounding. *Polymer* 2001, 42 (3), 1083-1094.

Cho, M. S.; Choi, H. J.; To, K., Effect of ionic pendent groups on a polyaniline-based electrorheological fluid. *Macromolecular Rapid Communications* 1998, 19 (6), 271-273.

Chou, C.-C.; Shieu, F.-S.; Lin, J.-J., Preparation, Organophilicity, and Self-Assembly of Poly (oxypropylene) amine- Clay Hybrids. *Macromolecules* 2003, 36 (7), 2187-2189.

Clark, W. J.; Ramsey, J. D.; McCreery, R. L.; Frankel, G. S., A Galvanic Corrosion Approach to Investigating Chromate Effects on Aluminum Alloy 2024-T3. *Journal of The Electrochemical Society* 2002, 149 (5), B179-B185.

Cole, K. C., Use of infrared spectroscopy to characterize clay intercalation and exfoliation in polymer nanocomposites. *Macromolecules* 2008, 41 (3), 834-843.

Cui, L.; Tarte, N. H.; Woo, S. I., Effects of modified clay on the morphology and properties of PMMA/clay nanocomposites synthesized by in situ polymerization. *Macromolecules* 2008, 41 (12), 4268-4274.

Cui, Y.; Kumar, S.; Kona, B. R.; van Houcke, D., Gas barrier properties of polymer/clay nanocomposites. *RSC Advances* 2015, 5 (78), 63669-63690.

de Leon, A. C. C.; Pernites, R. B.; Advincula, R. C., Superhydrophobic Colloidally Textured Polythiophene Film as Superior Anticorrosion Coating. *ACS Applied Materials & Interfaces* 2012, 4 (6), 3169-3176.

de Paiva, L. B.; Morales, A. R.; Valenzuela Díaz, F. R., Organoclays: Properties, preparation and applications. *Applied Clay Science* 2008, 42 (1-2), 8-24.

DeBerry, D. W., Modification of the electrochemical and corrosion behavior of stainless steels with an electroactive coating. *Journal of the Electrochemical society* 1985, 132 (5), 1022-1026.

Du, X.; Jiang, Z.; Meng, X.; Wang, Z.; Yu, H.; Li, M.; Tang, T., Syntheses of opened hollow clay microspheres through a spray-drying approach and their derivative clay/carbon nanotubes composites. *The Journal of Physical Chemistry C* 2008, 112 (17), 6638-6642.

Escalé, P.; Rubatat, L.; Billon, L.; Save, M., Recent advances in honeycomb-structured porous polymer films prepared via breath figures. *European Polymer Journal* 2012, 48 (6), 1001-1025.

Faure, E.; Halusiak, E.; Farina, F.; Giamblanco, N.; Motte, C.; Poelman, M.; Archambeau, C.; Van De Weerdt, C.; Martial, J.; Jérôme, C.; Duwez, A.-S.; Detrembleur, C., Clay and DOPA Containing Polyelectrolyte Multilayer Film for Imparting Anticorrosion Properties to Galvanized Steel. *Langmuir* 2011, 28 (5), 2971-2978.

Feldman, D., Polymer Nanocomposite Barriers. *Journal of Macromolecular Science, Part A* 2013, 50 (4), 441-448.

Fischer, H., Polymer nanocomposites: from fundamental research to specific applications. *Materials Science and Engineering: C* 2003, 23 (6–8), 763-772.

Fornes, T.; Yoon, P.; Keskkula, H.; Paul, D., Nylon 6 nanocomposites: the effect of matrix molecular weight. *Polymer* 2001, 42 (25), 09929-09940.

Fournaris, K.; Karakassides, M.; Petridis, D.; Yiannakopoulou, K., Clay-Polyvinylpyridine Nanocomposites. *Chemistry of materials* 1999, 11 (9), 2372-2381.

Francis, C., Adsorption of polyvinylpyrrolidone on reference clay minerals. *Soil Science* 1973, 115 (1), 40-54.

Fu, X.; Qutubuddin, S., Polymer-clay nanocomposites: exfoliation of organophilic montmorillonite nanolayers in polystyrene. *Polymer* 2001, 42 (2), 807-813.

Fu, X. A.; Qutubuddin, S., Swelling behavior of organoclays in styrene and exfoliation in nanocomposites. *Journal of Colloid and Interface Science* 2005, 283 (2), 373-379.

Galeotti, F.; Mróz, W.; Bolognesi, A., CdTe nanocrystal assemblies guided by breath figure templates. *Soft Matter* 2011, 7 (8), 3832-3836.

Gao, F., Clay/polymer composites: the story. *Materials Today* 2004, 7 (11), 50-55.

Garces, J. M.; Moll, D. J.; Bicerano, J.; Fibiger, R.; McLeod, D. G., Polymeric nanocomposites for automotive applications. *Advanced Materials* 2000, 12 (23), 1835-1839.

Garcés, J. M.; Moll, D. J.; Bicerano, J.; Fibiger, R.; McLeod, D. G., Polymeric Nanocomposites for Automotive Applications. *Advanced Materials* 2000, 12 (23), 1835-1839.

Gemeay, A.; El-Sherbiny, A.; Zaki, A., Adsorption and kinetic studies of the intercalation of some organic compounds onto Na⁺-montmorillonite. *Journal of colloid and interface science* 2002, 245 (1), 116-125.

Giannelis, E. P., Polymer-layered silicate nanocomposites: Synthesis, properties and applications. *Applied Organometallic Chemistry* 1998, 12 (10-11), 675-680.

Gilman, J. W., Flammability and thermal stability studies of polymer layered-silicate (clay) nanocomposites. *Applied Clay Science* 1999, 15 (1), 31-49.

Gilman, J. W.; Jackson, C. L.; Morgan, A. B.; Harris, R.; Manias, E.; Giannelis, E. P.; Wuthenow, M.; Hilton, D.; Phillips, S. H., Flammability Properties of Polymer-Layered-Silicate Nanocomposites. Polypropylene and Polystyrene Nanocomposites. *Chemistry of Materials* 2000, 12 (7), 1866-1873.

Gorrasí, G.; Tortora, M.; Vittoria, V.; Pollet, E.; Lepoittevin, B.; Alexandre, M.; Dubois, P., Vapor barrier properties of polycaprolactone montmorillonite nanocomposites: effect of clay dispersion. *Polymer* 2003, 44 (8), 2271-2279.

Graedel, T. E.; Frankenthal, R. P., Corrosion Mechanisms for Iron and Low Alloy Steels Exposed to the Atmosphere. *Journal of The Electrochemical Society* 1990, 137 (8), 2385-2394.

Greenland, D., Adsorption of polyvinyl alcohols by montmorillonite. *Journal of Colloid Science* 1963, 18 (7), 647-664.

Guduri, B. R.; Luyt, A. S., Structure and mechanical properties of polycarbonate modified clay nanocomposites. *Journal of nanoscience and nanotechnology* 2008, 8 (4), 1880-1885.

Guo, X.; Xu, S.; Zhao, L.; Lu, W.; Zhang, F.; Evans, D. G.; Duan, X., One-Step Hydrothermal Crystallization of a Layered Double Hydroxide/Alumina Bilayer Film on Aluminum and Its Corrosion Resistance Properties. *Langmuir* 2009, 25 (17), 9894-9897.

Hansson, C., The impact of corrosion on society. *Metallurgical and Materials Transactions A* 2011, 42 (10), 2952-2962.

Haraguchi, K.; Li, H.-J., Mechanical Properties and Structure of Polymer-Clay Nanocomposite Gels with High Clay Content. *Macromolecules* 2006, 39 (5), 1898-1905.

Hasegawa, N.; Kawasumi, M.; Kato, M.; Usuki, A.; Okada, A., Preparation and mechanical properties of polypropylene-clay hybrids using a maleic anhydride-modified polypropylene oligomer. *Journal of Applied Polymer Science* 1998, 67 (1), 87-92.

He, J.; Gelling, V. J.; Tallman, D. E.; Bierwagen, G. P., A Scanning Vibrating Electrode Study of Chromated-Epoxy Primer on Steel and Aluminum. *Journal of The Electrochemical Society* 2000, 147 (10), 3661-3666.

Hiller, J. A.; Mendelsohn, J. D.; Rubner, M. F., Reversibly erasable nanoporous anti-reflection coatings from polyelectrolyte multilayers. *Nature materials* 2002, 1 (1), 59-63.

Hotta, S.; Paul, D., Nanocomposites formed from linear low density polyethylene and organoclays. *Polymer* 2004, 45 (22), 7639-7654.

Hou, G.-X.; Chen, X.-G.; Liu, J.-J.; Sang, X.-M., Morphologies and Mechanical Properties of Polyurethane/Epoxy Resin Interpenetrating Network Composites Modified with Kaolin. *Polymer-Plastics Technology and Engineering* 2011, 50 (12), 1208-1213.

Hung, W.-I.; Chang, K.-C.; Chang, Y.-H.; Yeh, J.-M., Advanced anticorrosive coatings prepared from polymer-clay nanocomposite materials. In *Advances in*

Nanocomposites-Synthesis, Characterization and Industrial Applications, InTech: 2011.

Hussain, F.; Hojjati, M.; Okamoto, M.; Gorga, R. E., Review article: Polymer-matrix Nanocomposites, Processing, Manufacturing, and Application: An Overview. *Journal of Composite Materials* 2006, 40 (17), 1511-1575.

Hwang, S.-s.; Hsu, P. P.; Yeh, J.-m.; Yang, J.-p.; Chang, K.-c.; Lai, Y.-z., Effect of clay and compatibilizer on the mechanical/thermal properties of microcellular injection molded low density polyethylene nanocomposites. *International Communications in Heat and Mass Transfer* 2009, 36 (5), 471-479.

Iijima, S., Helical microtubules of graphitic carbon. *Nature* 1991, 354 (6348), 56-5

Jeong, H.-S.; Kim, J. H.; Lee, S.-Y., A novel poly (vinylidene fluoride-hexafluoropropylene)/poly (ethylene terephthalate) composite nonwoven separator with phase inversion-controlled microporous structure for a lithium-ion battery. *Journal of Materials Chemistry* 2010, 20 (41), 9180-9186.

Jiang, L.; Lam, Y.; Tam, K.; Chua, T.; Sim, G.; Ang, L., Strengthening acrylonitrile-butadiene-styrene (ABS) with nano-sized and micron-sized calcium carbonate. *Polymer* 2005, 46 (1), 243-252.

Kalendova, A.; Merinska, D.; Gerard, J. F.; Slouf, M., Polymer/clay nanocomposites and their gas barrier properties. *Polymer Composites* 2013, 34 (9), 1418-1424.

Kashiwagi, T.; Harris Jr, R. H.; Zhang, X.; Briber, R. M.; Cipriano, B. H.; Raghavan, S. R.; Awad, W. H.; Shields, J. R., Flame retardant mechanism of polyamide 6-clay nanocomposites. *Polymer* 2004, 45 (3), 881-891.

Ke, B.-B.; Wan, L.-S.; Chen, P.-C.; Zhang, L.-Y.; Xu, Z.-K., Tunable assembly of nanoparticles on patterned porous film. *Langmuir* 2010, 26 (20), 15982-15988.

Kiliaris, P.; Papaspyrides, C. D., Polymer/layered silicate (clay) nanocomposites: An overview of flame retardancy. *Progress in Polymer Science* 2010, 35 (7), 902-958.

Kim, J. W.; Liu, F.; Choi, H. J.; Hong, S. H.; Joo, J., Intercalated polypyrrole/Na⁺-montmorillonite nanocomposite via an inverted emulsion pathway method. *Polymer* 2003, 44 (1), 289-293.

Kim, S. G.; Kim, J. W.; Cho, M. S.; Choi, H. J.; Jhon, M. S., Viscoelastic characterization of semiconducting dodecylbenzenesulfonic acid doped polyaniline electrorheological suspensions. *Journal of Applied Polymer Science* 2001, 79 (1), 108-114.

Kojima, Y.; Usuki, A.; Kawasumi, M.; Okada, A.; Kurauchi, T.; Kamigaito, O., One-pot synthesis of nylon 6-clay hybrid. *Journal of Polymer Science Part A: Polymer Chemistry* 1993, 31 (7), 1755-1758.

Kozak, M.; Domka, L., Adsorption of the quaternary ammonium salts on montmorillonite. *Journal of Physics and Chemistry of Solids* 2004, 65 (2), 441-445.

Krishnamoorti, R.; Giannelis, E. P., Rheology of end-tethered polymer layered silicate nanocomposites. *Macromolecules* 1997, 30 (14), 4097-4102.

Krishnamoorti, R.; Vaia, R. A.; Giannelis, E. P., Structure and Dynamics of Polymer-Layered Silicate Nanocomposites. *Chemistry of Materials* 1996, 8 (8), 1728-1734.

Kuila, B. K.; Nandi, A. K., Physical, Mechanical, and Conductivity Properties of Poly(3-hexylthiophene)-Montmorillonite Clay Nanocomposites Produced by the Solvent Casting Method. *Macromolecules* 2004, 37 (23), 8577-8584.

Kuila, T.; Srivastava, S.; Bhowmick, A.; Saxena, A., Thermoplastic polyolefin based polymer-blend-layered double hydroxide nanocomposites. *Composites Science and Technology* 2008, 68 (15), 3234-3239.

Lagaly, G., Interaction of alkylamines with different types of layered compounds. *Solid State Ionics* 1986, 22 (1), 43-51.

Lai, M.-C.; Chang, K.-C.; Yeh, J.-M.; Liou, S.-J.; Hsieh, M.-F.; Chang, H.-S., Advanced environmentally friendly anticorrosive materials prepared from water-

based polyacrylate/Na+-MMT clay nanocomposite latexes. European Polymer Journal 2007, 43 (10), 4219-4228.

Lan, T.; Kaviratna, P. D.; Pinnavaia, T. J., On the Nature of Polyimide-Clay Hybrid Composites. Chemistry of Materials 1994, 6 (5), 573-575.

Lange, J.; Wyser, Y., Recent innovations in barrier technologies for plastic packaging—a review. Packaging Technology and Science 2003, 16 (4), 149-158.

Laoutid, F.; Bonnaud, L.; Alexandre, M.; Lopez-Cuesta, J. M.; Dubois, P., New prospects in flame retardant polymer materials: From fundamentals to nanocomposites. Materials Science and Engineering: R: Reports 2009, 63 (3), 100-125.

Laus, M.; Francescangeli, O.; Sandrolini, F., New hybrid nanocomposites based on an organophilic clay and poly (styrene-b-butadiene) copolymers. Journal of materials research 1997, 12 (11), 3134-3139.

LeBaron, P. C.; Wang, Z.; Pinnavaia, T. J., Polymer-layered silicate nanocomposites: an overview. Applied clay science 1999, 15 (1), 11-29.

Lee, S.-R.; Park, H.-M.; Lim, H.; Kang, T.; Li, X.; Cho, W.-J.; Ha, C.-S., Microstructure, tensile properties, and biodegradability of aliphatic polyester/clay nanocomposites. Polymer 2002, 43 (8), 2495-2500.

Leu, C.-M.; Wu, Z.-W.; Wei, K.-H., Synthesis and properties of covalently bonded layered silicates/polyimide (BTDA-ODA) nanocomposites. Chemistry of Materials 2002, 14 (7), 3016-3021.

Levchik, S. V., Introduction to flame retardancy and polymer flammability. Flame retardant polymer nanocomposites 2007, 1-29.

Li, J.; Zhang, Y., Porous polymer films with size-tunable surface pores. Chemistry of materials 2007, 19 (10), 2581-2584.

Li, P.; Tan, T.; Lee, J., Corrosion protection of mild steel by electroactive polyaniline coatings. Synthetic Metals 1997, 88 (3), 237-242.

Lin, J. J.; Chou, C. C.; Lin, J. L., Lengthy Rod Formation from a Poly (oxyalkylene) amine-Intercalated Smectite Clay by a Self-Aligning Mechanism. *Macromolecular rapid communications* 2004, 25 (11), 1109-1112.

Lin, J.-J.; Chen, Y.-M., Amphiphilic properties of poly (oxyalkylene) amine-intercalated smectite aluminosilicates. *Langmuir* 2004, 20 (10), 4261-4264.

Lin, J.-J.; Chen, Y.-M.; Tsai, W.-C.; Chiu, C.-W., Self-assembly of lamellar clays to hierarchical microarrays. *The Journal of Physical Chemistry C* 2008, 112 (26), 9637-9643.

Liu, C.; Gao, C.; Yan, D., Honeycomb-Patterned Photoluminescent Films Fabricated by Self-Assembly of Hyperbranched Polymers. *Angewandte Chemie International Edition* 2007, 46 (22), 4128-4131.

Maiti, P.; Yamada, K.; Okamoto, M.; Ueda, K.; Okamoto, K., New Polylactide/Layered Silicate Nanocomposites: Role of Organoclays. *Chemistry of Materials* 2002, 14 (11), 4654-4661.

Manias, E., Origins of the materials properties enhancements in polymer/clay nanocomposites. *Nanocomposites* 2001.

Manias, E.; Touny, A.; Wu, L.; Strawhecker, K.; Lu, B.; Chung, T. C., Polypropylene/Montmorillonite Nanocomposites. Review of the Synthetic Routes and Materials Properties. *Chemistry of Materials* 2001, 13 (10), 3516-3523.

Messersmith, P. B.; Giannelis, E. P., Synthesis and Characterization of Layered Silicate-Epoxy Nanocomposites. *Chemistry of Materials* 1994, 6 (10), 1719-1725.

Messersmith, P. B.; Giannelis, E. P., Synthesis and barrier properties of poly(ϵ -caprolactone)-layered silicate nanocomposites. *Journal of Polymer Science Part A: Polymer Chemistry* 1995, 33 (7), 1047-1057.

Meneguzzi, A.; Pham, M. C.; Lacroix, J.-C.; Piro, B.; Adenier, A.; Ferreira, C. A.; Lacaze, P.-C., Electroactive poly (aromatic amine) films for iron protection in sulfate medium. *Journal of the Electrochemical Society* 2001, 148 (4), B121-B126.

Mittal, V., Mechanical and gas permeation properties of compatibilized polypropylene-layered silicate nanocomposites. *Journal of applied polymer science* 2008, 107 (2), 1350-1361.

Morgan, A. B.; Harris, J. D., Effects of organoclay Soxhlet extraction on mechanical properties, flammability properties and organoclay dispersion of polypropylene nanocomposites. *Polymer* 2003, 44 (8), 2313-2320.

Musto, P.; Ragosta, G.; Scarinzi, G.; Mascia, L., Toughness enhancement of polyimides by in situ generation of silica particles. *Polymer* 2004, 45 (12), 4265-4274.

Nair, B. P.; Pavithran, C., Micropatterned Surfaces through Moisture-Induced Phase-Separation of Polystyrene-Clay Nanocomposite Particles. *Langmuir* 2010, 26 (15), 12948-12952.

Nair, B. P.; Pavithran, C.; Sudha, J. D.; Prasad, V. S., Microvesicles through Self-Assembly of Polystyrene-Clay Nanocomposite. *Langmuir* 2010, 26 (3), 1431-1434.

Nam, P. H.; Maiti, P.; Okamoto, M.; Kotaka, T.; Hasegawa, N.; Usuki, A., A hierarchical structure and properties of intercalated polypropylene/clay nanocomposites. *Polymer* 2001, 42 (23), 9633-9640.

Negrete-Herrera, N.; Putaux, J.-L.; David, L.; Haas, F. D.; Bourgeat-Lami, E., Polymer/Laponite Composite Latexes: Particle Morphology, Film Microstructure, and Properties. *Macromolecular Rapid Communications* 2007, 28 (15), 1567-1573.

Nevalainen, K.; Vuorinen, J.; Villman, V.; Suihkonen, R.; Järvelä, P.; Sundelin, J.; Lepistö, T., Characterization of twin-screw-extruder-compounded polycarbonate nanoclay composites. *Polymer Engineering and Science* 2009, 49 (4), 631.

Nisha, A.; Rajeswari, M.; Dhamodharan, R., Intercalative redox polymerization and characterization of poly (n-vinyl-2-pyrrolidinone) in the gallery of

vermiculite: A novel inorganic–organic hybrid material. *Journal of Applied Polymer Science* 2000, 76 (12), 1825-1830.

Ojijo, V.; Sinha Ray, S.; Sadiku, R., Effect of Nanoclay Loading on the Thermal and Mechanical Properties of Biodegradable Polylactide/Poly[(butylene succinate)-co-adipate] Blend Composites. *ACS Applied Materials & Interfaces* 2012, 4 (5), 2395-2405.

Okada, A.; Kawasumi, M.; Usuki, A.; Kojima, Y.; Kurauchi, T.; Kamigaito, O. In Nylon 6-clay hybrid, *Mater Res Soc Proc*, 1990; pp 45-50.

Okamoto, M.; Morita, S.; Kim, Y.; Kotaka, T.; Tateyama, H., Dispersed structure change of smectic clay/poly (methyl methacrylate) nanocomposites by copolymerization with polar comonomers. *Polymer* 2001, 42 (3), 1201-1206.

Okamoto, M.; Morita, S.; Kotaka, T., Dispersed structure and ionic conductivity of smectic clay/polymer nanocomposites. *Polymer* 2001, 42 (6), 2685-2688.

Okamoto, M.; Morita, S.; Taguchi, H.; Kim, Y. H.; Kotaka, T.; Tateyama, H., Synthesis and structure of smectic clay/poly (methyl methacrylate) and clay/polystyrene nanocomposites via in situ intercalative polymerization. *Polymer* 2000, 41 (10), 3887-3890.

Pandey, J. K.; Reddy, K. R.; Kumar, A. P.; Singh, R., An overview on the degradability of polymer nanocomposites. *Polymer degradation and stability* 2005, 88 (2), 234-250.

Park, H.-M.; Li, X.; Jin, C.-Z.; Park, C.-Y.; Cho, W.-J.; Ha, C.-S., Preparation and Properties of Biodegradable Thermoplastic Starch/Clay Hybrids. *Macromolecular Materials and Engineering* 2002, 287 (8), 553-558.

Park, S.-M.; Yoo, J.-S., Peer Reviewed: Electrochemical Impedance Spectroscopy for Better Electrochemical Measurements. *Analytical Chemistry* 2003, 75 (21), 455 A-461 A.

Pavlidou, S.; Papaspyrides, C. D., A review on polymer–layered silicate nanocomposites. *Progress in Polymer Science* 2008, 33 (12), 1119-1198.

Petrović, Z. S.; Javni, I.; Waddon, A.; Bánhegyi, G., Structure and properties of polyurethane–silica nanocomposites. *Journal of Applied Polymer Science* 2000, 76 (2), 133-151.

Porter, D.; Metcalfe, E.; Thomas, M., Nanocomposite fire retardants-a review. *Fire and Materials* 2000, 24 (1), 45-52.

Qin, H.; Zhang, S.; Zhao, C.; Hu, G.; Yang, M., Flame retardant mechanism of polymer/clay nanocomposites based on polypropylene. *Polymer* 2005, 46 (19), 8386-8395.

Raju, A., V. Lakshmi, R. K. Vishnu Prataap, V. G. Resmi, T. P. D. Rajan, C. Pavithran, V. S. Prasad and S. Mohan (2016). "Adduct modified nano-clay mineral dispersed polystyrene nanocomposites as advanced corrosion resistance coatings for aluminum alloys." *Applied Clay Science* 126: 81-88.

Ratna, D.; Divekar, S.; Samui, A. B.; Chakraborty, B. C.; Banthia, A. K., Poly(ethylene oxide)/clay nanocomposite: Thermomechanical properties and morphology. *Polymer* 2006, 47 (11), 4068-4074.

Ratna, D.; Manoj, N. R.; Varley, R.; Singh Raman, R. K.; Simon, G. P., Clay-reinforced epoxy nanocomposites. *Polymer International* 2003, 52 (9), 1403-1407.

Ray, S.; Quek Siew, Y.; Easteal, A.; Chen Xiao, D., The Potential Use of Polymer-Clay Nanocomposites in Food Packaging. In *International Journal of Food Engineering*, 2006; Vol. 2.

Ray, S. S., A new possibility for microstructural investigation of clay-based polymer nanocomposite by focused ion beam tomography. *Polymer* 2010, 51 (17), 3966-3970.

Ray, S. S.; Bousmina, M., Biodegradable polymers and their layered silicate nanocomposites: in greening the 21st century materials world. *Progress in materials science* 2005, 50 (8), 962-1079.

Ray, S. S.; Okamoto, M., Polymer/layered silicate nanocomposites: a review from preparation to processing. *Progress in polymer science* 2003, 28 (11), 1539-1641.

Ray, S. S.; Okamoto, M., Biodegradable Polylactide and Its Nanocomposites: Opening a New Dimension for Plastics and Composites. *Macromolecular Rapid Communications* 2003, 24 (14), 815-840.

Ray, S. S.; Yamada, K.; Okamoto, M.; Ueda, K., Polylactide-layered silicate nanocomposite: a novel biodegradable material. *Nano Lett* 2002, 2 (10), 1093-1096.

Ray, S. S.; Yamada, K.; Okamoto, M.; Ueda, K., New polylactide-layered silicate nanocomposites. 2. Concurrent improvements of material properties, biodegradability and melt rheology. *Polymer* 2003, 44 (3), 857-866.

Rehab, A.; Salahuddin, N., Nanocomposite materials based on polyurethane intercalated into montmorillonite clay. *Materials Science and Engineering: A* 2005, 399 (1), 368-376.

Ren, C.; Du, X.; Ma, L.; Wang, Y.; Zheng, J.; Tang, T., Preparation of multifunctional supported metallocene catalyst using organic multifunctional modifier for synthesizing polyethylene/clay nanocomposites via in situ intercalative polymerization. *Polymer* 2010, 51 (15), 3416-3424.

Ruiz-Hitzky, P. A., Poly (ethylene oxide)-Silicate Intercalation Material. *Chem Mater* 1992, 4, 1395-1403.

Sain, S.; Khatua, B., Synthesis of highly exfoliated PS/Na⁺-MMT nanocomposites by suspension polymerization using Na⁺-MMT clay platelets as suspension stabilizer. *Macromolecular Research* 2011, 19 (1), 44-52.

Sanchez, C.; Julian, B.; Belleville, P.; Popall, M., Applications of hybrid organic-inorganic nanocomposites. *Journal of Materials Chemistry* 2005, 15 (35-36), 3559-3592.

Sánchez-Jiménez, P. E.; Pérez-Maqueda, L. A.; Perejón, A.; Criado, J. M., Nanoclay Nucleation Effect in the Thermal Stabilization of a Polymer Nanocomposite: A Kinetic Mechanism Change. *The Journal of Physical Chemistry C* 2012, 116 (21), 11797-11807.

Schmidt, D.; Shah, D.; Giannelis, E. P., New advances in polymer/layered silicate nanocomposites. *Current Opinion in Solid State and Materials Science* 2002, 6 (3), 205-212.

Schmidt, G.; Malwitz, M. M., Properties of polymer–nanoparticle composites. *Current opinion in colloid & interface science* 2003, 8 (1), 103-108.

Shabani-Nooshabadi, M.; Ghoreishi, S. M.; Behpour, M., Direct electrosynthesis of polyaniline–montmorillonite nanocomposite coatings on aluminum alloy 3004 and their corrosion protection performance. *Corrosion Science* 2011, 53 (9), 3035-3042.

Shelley, J.; Mather, P.; DeVries, K., Reinforcement and environmental degradation of nylon-6/clay nanocomposites. *Polymer* 2001, 42 (13), 5849-5858.

Shi, H.; Lan, T.; Pinnavaia, T. J., Interfacial Effects on the Reinforcement Properties of Polymer–Organoclay Nanocomposites. *Chemistry of Materials* 1996, 8 (8), 1584-1587.

Simons, R.; Qiao, G. G.; Powell, C. E.; Bateman, S. A., Effect of Surfactant Architecture on the Properties of Polystyrene–Montmorillonite Nanocomposites. *Langmuir* 2010, 26 (11), 9023-9031.

Sinha Ray, S.; Okamoto, K.; Okamoto, M., Structure- property relationship in biodegradable poly (butylene succinate)/layered silicate nanocomposites. *Macromolecules* 2003, 36 (7), 2355-2367.

Sinha Ray, S.; Yamada, K.; Okamoto, M.; Ogami, A.; Ueda, K., New polylactide/layered silicate nanocomposites. 3. High-performance biodegradable materials. *Chemistry of Materials* 2003, 15 (7), 1456-1465.

Solomon, M. J.; Almusallam, A. S.; Seefeldt, K. F.; Somwangthanaroj, A.; Varadan, P., Rheology of polypropylene/clay hybrid materials. *Macromolecules* 2001, 34 (6), 1864-1872.

Solyman, W. S. E.; Nagiub, H. M.; Alian, N. A.; Shaker, N. O.; Kandil, U. F., Synthesis and characterization of phenol/formaldehyde nanocomposites: Studying the effect of incorporating reactive rubber nanoparticles or Cloisite-30B nanoclay on the mechanical properties, morphology and thermal stability. *Journal of Radiation Research and Applied Sciences* 2017, 10 (1), 72-79.

Somwangthanaroj, A.; Lee, E. C.; Solomon, M. J., Early stage quiescent and flow-induced crystallization of intercalated polypropylene nanocomposites by time-resolved light scattering. *Macromolecules* 2003, 36 (7), 2333-2342.

Stenzel, M. H.; Barner-Kowollik, C.; Davis, T. P., Formation of honeycomb-structured, porous films via breath figures with different polymer architectures. *Journal of Polymer Science Part A: Polymer Chemistry* 2006, 44 (8), 2363-2375.

Su, S.; Wilkie, C. A., Exfoliated poly (methyl methacrylate) and polystyrene nanocomposites occur when the clay cation contains a vinyl monomer. *Journal of Polymer Science Part A: Polymer Chemistry* 2003, 41 (8), 1124-1135.

Sur, G.; Sun, H.; Lyu, S.; Mark, J., Synthesis, structure, mechanical properties, and thermal stability of some polysulfone/organoclay nanocomposites. *Polymer* 2001, 42 (24), 9783-9789.

Tan, B.; Thomas, N. L., A review of the water barrier properties of polymer/clay and polymer/graphene nanocomposites. *Journal of Membrane Science* 2016, 514, 595-612.

Tang, Y.; Hu, Y.; Song, L.; Zong, R.; Gui, Z.; Chen, Z.; Fan, W., Preparation and thermal stability of polypropylene/montmorillonite nanocomposites. *Polymer Degradation and Stability* 2003, 82 (1), 127-131.

Tanner, P.; Baumann, P.; Enea, R.; Onaca, O.; Palivan, C.; Meier, W., Polymeric vesicles: from drug carriers to nanoreactors and artificial organelles. Accounts of chemical research 2011, 44 (10), 1039-1049.

Toombes, G. E. S.; Mahajan, S.; Thomas, M.; Du, P.; Tate, M. W.; Gruner, S. M.; Wiesner, U., Hexagonally Patterned Lamellar Morphology in ABC Triblock Copolymer/Aluminosilicate Nanocomposites. Chemistry of Materials 2008, 20 (10), 3278-3287.

Tortora, M.; Gorrasi, G.; Vittoria, V.; Galli, G.; Ritrovati, S.; Chiellini, E., Structural characterization and transport properties of organically modified montmorillonite/polyurethane nanocomposites. Polymer 2002, 43 (23), 6147-6157.

Tung, P. H.; Kuo, S. W.; Jeong, K. U.; Cheng, S. Z.; Huang, C. F.; Chang, F. C., Formation of honeycomb structures and superhydrophobic surfaces by casting a block copolymer from selective solvent mixtures. Macromolecular rapid communications 2007, 28 (3), 271-275.

Tyan, H.-L.; Liu, Y.-C.; Wei, K.-H., Thermally and Mechanically Enhanced Clay/Polyimide Nanocomposite via Reactive Organoclay. Chemistry of Materials 1999, 11 (7), 1942-1947.

Usuki, A.; Kojima, Y.; Kawasumi, M.; Okada, A.; Fukushima, Y.; Kurauchi, T.; Kamigaito, O., Synthesis of nylon 6-clay hybrid. Journal of Materials Research 2011, 8 (5), 1179-1184.

Vaia, R. A.; Giannelis, E. P., Lattice model of polymer melt intercalation in organically-modified layered silicates. Macromolecules 1997, 30 (25), 7990-7999.

Vaia, R. A.; Giannelis, E. P., Polymer melt intercalation in organically-modified layered silicates: model predictions and experiment. Macromolecules 1997, 30 (25), 8000-8009.

Vaia, R. A.; Ishii, H.; Giannelis, E. P., Synthesis and properties of two-dimensional nanostructures by direct intercalation of polymer melts in layered silicates. *Chemistry of Materials* 1993, 5 (12), 1694-1696.

Vaia, R. A.; Jandt, K. D.; Kramer, E. J.; Giannelis, E. P., Microstructural evolution of melt intercalated polymer- organically modified layered silicates nanocomposites. *Chemistry of Materials* 1996, 8 (11), 2628-2635.

Vyazovkin, S.; Dranca, I.; Fan, X.; Advincula, R., Kinetics of the Thermal and Thermo-Oxidative Degradation of a Polystyrene–Clay Nanocomposite. *Macromolecular rapid communications* 2004, 25 (3), 498-503.

Wang, S.; Hu, Y.; Song, L.; Wang, Z.; Chen, Z.; Fan, W., Preparation and thermal properties of ABS/montmorillonite nanocomposite. *Polymer Degradation and Stability* 2002, 77 (3), 423-426.

Wang, S.; Hu, Y.; Zong, R.; Tang, Y.; Chen, Z.; Fan, W., Preparation and characterization of flame retardant ABS/montmorillonite nanocomposite. *Applied Clay Science* 2004, 25 (1–2), 49-55.

Wang, Y.; Liu, Z.; Huang, Y.; Han, B.; Yang, G., Micropatterned polymer surfaces induced by nonsolvent. *Langmuir* 2006, 22 (4), 1928-1931.

Wang, Z.; Pinnavaia, T. J., Hybrid Organic–Inorganic Nanocomposites: Exfoliation of Magadiite Nanolayers in an Elastomeric Epoxy Polymer. *Chemistry of Materials* 1998, 10 (7), 1820-1826.

Wang, Z.; Pinnavaia, T. J., Nanolayer Reinforcement of Elastomeric Polyurethane. *Chemistry of Materials* 1998, 10 (12), 3769-3771.

Weng, C.-J.; Chen, Y.-L.; Jhuo, Y.-S.; Yi-Li, L.; Yeh, J.-M., Advanced antistatic/anticorrosion coatings prepared from polystyrene composites incorporating dodecylbenzenesulfonic acid-doped SiO₂@polyaniline core–shell microspheres. *Polymer International* 2013, 62 (5), 774-782.

Weon, J.-I.; Sue, H.-J., Effects of clay orientation and aspect ratio on mechanical behavior of nylon-6 nanocomposite. *Polymer* 2005, 46 (17), 6325-6334.

Wessling, B., Passivation of metals by coating with polyaniline: Corrosion potential shift and morphological changes. *Advanced Materials* 1994, 6 (3), 226-228.

Wessling, B., Scientific and Commercial Breakthrough for Organic Metals. *Synthetic Metals* 1997, 85 (1), 1313-1318.

Widawski, G.; Rawiso, M.; François, B., Self-organized honeycomb morphology of star-polymer polystyrene films. 1994.

Wu, Y.; Liu, Z.; Herrera-Alonso, J. M.; Marand, E.; Little, J. C., A new method to predict the effective diffusion coefficient of gases and vapors in polyurethane/clay nanocomposite membranes. *Journal of Membrane Science* 2016, 510, 201-208.

Yano, K.; Usuki, A.; Okada, A.; Kurauchi, T.; Kamigaito, O., Synthesis and properties of polyimide-clay hybrid. *Journal of Polymer Science Part A: Polymer Chemistry* 1993, 31 (10), 2493-2498.

Yao, H.; Zhu, J.; Wilkie, C. A.; Morgan, A. B., Crown ether-modified clays and their polystyrene nanocomposites. *Polymer Engineering & Science* 2002, 42 (9), 1808-1814.

Yasmin, A.; Abot, J. L.; Daniel, I. M., Processing of clay/epoxy nanocomposites by shear mixing. *Scripta Materialia* 2003, 49 (1), 81-86.

Yeh, J. M.; Chen, C. L.; Chen, Y. C.; Ma, C. Y.; Huang, H. Y.; Yu, Y. H., Enhanced corrosion prevention effect of polysulfone-clay nanocomposite materials prepared by solution dispersion. *Journal of applied polymer science* 2004, 92 (1), 631-637.

Yeh, J. M.; Chin, C. P.; Chang, S., Enhanced corrosion protection coatings prepared from soluble electronically conductive polypyrrole-clay nanocomposite materials. *Journal of Applied Polymer Science* 2003, 88 (14), 3264-3272.

Yeh, J. M.; Hsieh, C. F.; Jaw, J. H.; Kuo, T. H.; Huang, H. Y.; Lin, C. L.; Hsu, M. Y., Organo-soluble polyimde (ODA-BSAA)/montmorillonite nanocomposite

materials prepared by solution dispersion technique. *Journal of applied polymer science* 2005, 95 (5), 1082-1090.

Yeh, J. M.; Liou, S. J.; Lin, C. G.; Chang, Y. P.; Yu, Y. H.; Cheng, C. F., Effective enhancement of anticorrosive properties of polystyrene by polystyrene-clay nanocomposite materials. *Journal of applied polymer science* 2004, 92 (3), 1970-1976.

Yeh, J. M.; Liou, S. J.; Lu, H. J.; Huang, H. Y., Enhancement of corrosion protection effect of poly (styrene-co-acrylonitrile) by the incorporation of nanolayers of montmorillonite clay into copolymer matrix. *Journal of applied polymer science* 2004, 92 (4), 2269-2277.

Yeh, J.-M.; Chang, K.-C., Polymer/layered silicate nanocomposite anticorrosive coatings. *Journal of Industrial and Engineering Chemistry* 2008, 14 (3), 275-291.

Yeh, J.-M.; Chen, C.-L.; Chen, Y.-C.; Ma, C.-Y.; Lee, K.-R.; Wei, Y.; Li, S., Enhancement of corrosion protection effect of poly (o-ethoxyaniline) via the formation of poly (o-ethoxyaniline)-clay nanocomposite materials. *Polymer* 2002, 43 (9), 2729-2736.

Yeh, J.-M.; Huang, H.-Y.; Chen, C.-L.; Su, W.-F.; Yu, Y.-H., Siloxane-modified epoxy resin-clay nanocomposite coatings with advanced anticorrosive properties prepared by a solution dispersion approach. *Surface and Coatings Technology* 2006, 200 (8), 2753-2763.

Yeh, J.-M.; Kuo, T.-H.; Huang, H.-J.; Chang, K.-C.; Chang, M.-Y.; Yang, J.-C., Preparation and characterization of poly (o-methoxyaniline)/Na⁺-MMT clay nanocomposite via emulsion polymerization: Electrochemical studies of corrosion protection. *European polymer journal* 2007, 43 (5), 1624-1634.

Yeh, J.-M.; Liou, S.-J.; Lai, C.-Y.; Wu, P.-C.; Tsai, T.-Y., Enhancement of corrosion protection effect in polyaniline via the formation of polyaniline-clay nanocomposite materials. *Chemistry of Materials* 2001, 13 (3), 1131-1136.

Yeh, J.-M.; Liou, S.-J.; Lin, C.-Y.; Cheng, C.-Y.; Chang, Y.-W.; Lee, K.-R., Anticorrosively enhanced PMMA-clay nanocomposite materials with quaternary alkylphosphonium salt as an intercalating agent. *Chemistry of materials* 2002, 14 (1), 154-161.

Yu, M.-F.; Lourie, O.; Dyer, M. J.; Moloni, K.; Kelly, T. F.; Ruoff, R. S., Strength and Breaking Mechanism of Multiwalled Carbon Nanotubes Under Tensile Load. *Science* 2000, 287 (5453), 637-640.

Yu, Y. H.; Yeh, J. M.; Liou, S. J.; Chen, C. L.; Liaw, D. J.; Lu, H. Y., Preparation and properties of polyimide-clay nanocomposite materials for anticorrosion application. *Journal of applied polymer science* 2004, 92 (6), 3573-3582.

Yu, Y.-H.; Yeh, J.-M.; Liou, S.-J.; Chang, Y.-P., Organo-soluble polyimide (TBAPP-OPDA)/clay nanocomposite materials with advanced anticorrosive properties prepared from solution dispersion technique. *Acta Materialia* 2004, 52 (2), 475-486.

Zanetti, M.; Bracco, P.; Costa, L., Thermal degradation behaviour of PE/clay nanocomposites. *Polymer Degradation and Stability* 2004, 85 (1), 657-665.

Zeng, C.; Lee, L. J., Poly (methyl methacrylate) and polystyrene/clay nanocomposites prepared by in-situ polymerization. *Macromolecules* 2001, 34 (12), 4098-4103.

Zeng, C.; Lee, L. J., Poly(methyl methacrylate) and Polystyrene/Clay Nanocomposites Prepared by in-Situ Polymerization. *Macromolecules* 2001, 34 (12), 4098-4103.

Zeng, Q.; Wang, D.; Yu, A.; Lu, G., Synthesis of polymer-montmorillonite nanocomposites by in situ intercalative polymerization. *Nanotechnology* 2002, 13 (5), 549.

Zhang, C.; Wang, X.; Min, K.; Lee, D.; Wei, C.; Schulhauser, H.; Gao, H., Developing Porous Honeycomb Films Using Miktoarm Star Copolymers and

Exploring Their Application in Particle Separation. *Macromolecular Rapid Communications* 2014, 35 (2), 221-227.

Zhang, H.; Zhang, P.; Li, Z.; Sun, M.; Wu, Y.; Wu, H., A novel sandwiched membrane as polymer electrolyte for lithium ion battery. *Electrochemistry communications* 2007, 9 (7), 1700-1703.

Zhang, L.; Wang, Y.; Wang, Y.; Sui, Y.; Yu, D., Morphology and mechanical properties of clay/styrene-butadiene rubber nanocomposites. *Journal of Applied Polymer Science* 2000, 78 (11), 1873-1878.

Zhong, Y.; Zhu, Z.; Wang, S.-Q., Synthesis and rheological properties of polystyrene/layered silicate nanocomposite. *Polymer* 2005, 46 (9), 3006-3013.

Zhu, J.; Start, P.; Mauritz, K. A.; Wilkie, C. A., Thermal stability and flame retardancy of poly(methyl methacrylate)-clay nanocomposites. *Polymer Degradation and Stability* 2002, 77 (2), 253-258.