

Prof. Chuh-Yung Chen

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Research Interests

(1) Polymer Science and Engineering:

Living Free-Radical Polymerization;

Nano-Composite Polymer Materials

(LDH-PMMA, LDH-Epoxy, DH-Polyimide, Clay-Nylon, Clay-PET, Clay-TPU);

Impact Polymer Materials

(2) Liquid Crystal Display (LCD):

Back-Light Module-Design of Diffusion Particles

(3) Nano-Technology:

Design of Molecule Template;

Design of Nano-particles;

Design of Dispersion Agents for Nano-Particles

Nano-composite materials

(4) Plasma Technology:

Plasma Treatment of CNT;

Plasma Treatment of Polymer Surface

(5) Membrane Separation:

Prevaporization of Alcohol/Water;

Bipolar Membrane for Hydrogen Generation

(6) Design of Polymer Catalyst: Synthesis of Peroxides

(7) Design of Electrolyte Materials for Dye-Sensitive Solar Cell, Li-Battery and Fuel Cell

(8) Bio-Plastics: Synthesis and Application of Polyoxalate and PLA

(9) Flexible Conductive Transparent Film and photovoltaic film of CIGS

Representative Publications

1. Y. F. Chan, C. C. Wang, and Chuh-Yung Chen*, Journal of Materials Chemistry A, 1, 18, 5479-5486, 2013 (IF=5.968)
2. Y. F. Chan, C. C. Wang, and Chuh-Yung Chen*, Progress in Photovoltaics, 21, 1, 47-57, 2013 (IF= 5.767).
3. Y. F. Chan, C. C. Wang, Chuh-Yung Chen*, Carbon, 49, 4898-4910, 2011(IF= 4.893)

- Chen, I-Han; Wang, Cheng Chien; Chen, Chuh-Yung*, Journal of Physical Chemistry C, 114, 13532-13539, 2010 (IF= 4.224)
- I. H. Chen, C. C. Wang, Chuh-Yung Chen*, Carbon, 48 604-611, 2010 (IF= 4.504)
- S. J. Hsieh, Chuh-Yung Chen*, C. C. Wang, Macromolecules, 42 (13), pp. 4787-4794, 2009. (IF= 4.407)

2010

2011

2012

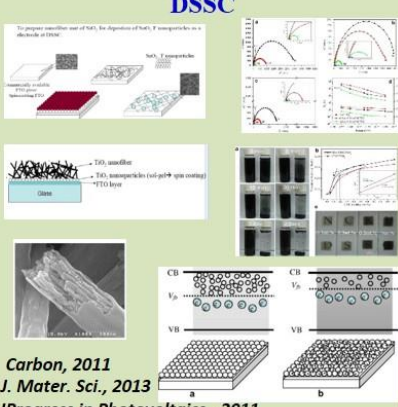
2013

2014

2015

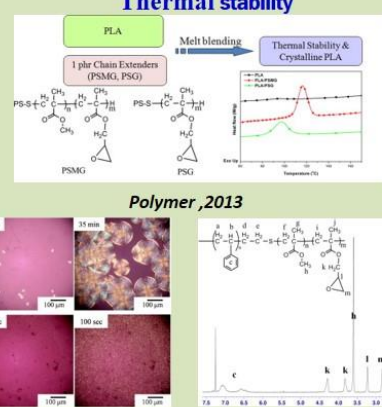
Energy

DSSC



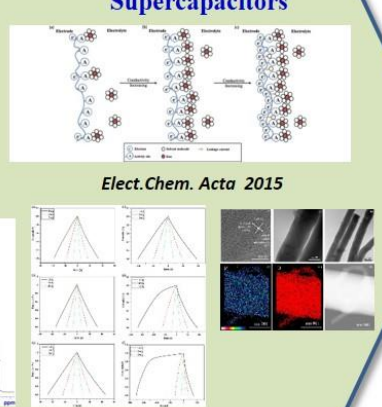
Carbon, 2011
J. Mater. Sci., 2013
JProgress in Photovoltaics, 2011

Thermal stability



Polymer, 2013


Supercapacitors



Elect. Chem. Acta 2015

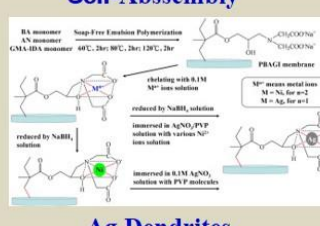
Nanotechnology

Dynamic Electrospinning



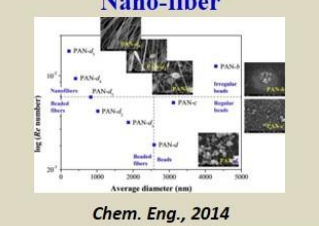
Polymer, 2010
Eur. Polym, 2010
Polymer, 2011

Self-Assembly



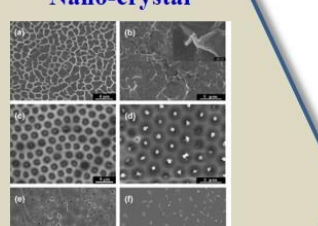
Mater. Sci Phys, 2012

Nano-fiber



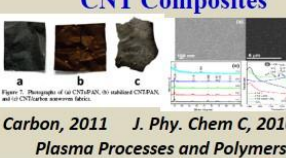
Chem. Eng., 2014

Nano-crystal



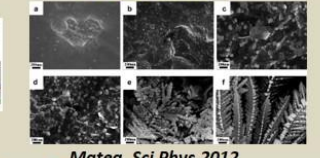
React. Funct. Polym. 2013

CNT Composites



Carbon, 2011 J. Phy. Chem C, 2010
Plasma Processes and Polymers

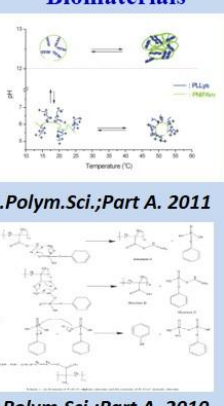
Ag Dendrites



Mater. Sci Phys, 2012

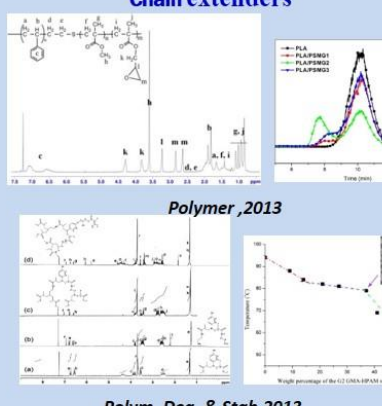
Molecular Designed

Biomaterials



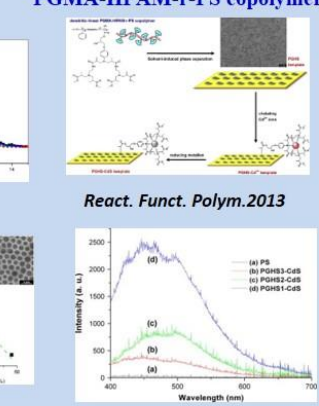
J. Polym. Sci.; Part A, 2011
J. Polym. Sci.; Part A, 2010

Chain extenders



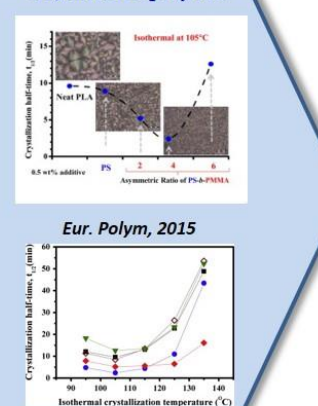
Polymer, 2013
Polym. Deg. & Stab, 2013

PGMA-HPAM-r-PS copolymers



React. Funct. Polym. 2013

PS/MMA copolymer



Eur. Polym, 2015