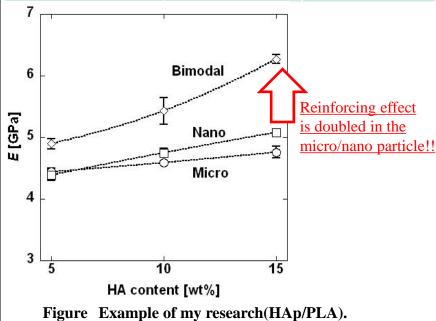
## Functionalization of nano-composites due to micro-particles dispersion Assistant Professor Tetsuo Takayama

## Table Merit and demerit of particle dispersed composites

	Merit	Demerit
Micro-composite	Good dispersion Reasonable	Lowreinforcement
Nano-composite	High reinforcement	Aggromeration Expensive
Micro/Nano-composite	Good dispersion High reinforcement Multifunctionality Rich combination	



## Content:

The concept of this study is that high functionalized polymer composites create by dispersing two or more types particles or fibers into same polymer to use a synergistic effect. Recent studies are follows:

- (1) Preparation and characterization of PP hybrid composites
- (2) Functionalization of PP/VGCF composites due to micro-particles dispersion
- (3) Development of HAp/PLA composites with higher mechanical properties. (See in Figure.)

Micro/Nano-particle dispersion has large number of merits than Micro- and Nano-particle dispersion as shown in Table. In addition, there is almost no demerits.

If you are interested in such research, please contact me.

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