

### Coating of N-doped TiO<sub>2</sub> thin films on particles by plasma chemical vapor deposition process

Pham Hung Cuong, Nguyen Hoang Hai, 김동주, 김교선\*  
강원대학교  
(kkyoseon@kangwon.ac.kr\*)

The N-doped TiO<sub>2</sub> thin films, activated under the visible-light irradiation, can be used for the removal of water pollutants. The efficiency of pollutant removal can be improved by using the substrate particles coated with N-doped TiO<sub>2</sub> thin films because the total surface area TiO<sub>2</sub> for photodegradation becomes high. The plasma chemical vapor deposition (PCVD) process has been widely used for thin film fabrication and can also be used to coat the high-quality thin films on particles.

In this study, we prepared the N-doped TiO<sub>2</sub> thin films on polypropylene particles using the rotating plasma reactor and investigated the characteristics of these thin films.