

Massive Atomic Hydrogen Production from  
Tetra-n-butylammonium semi-clathrate  
hydrate

고동연, 강혜리, 박주운, 이 혼\*  
한국과학기술원  
(h\_lee@kaist.ac.kr\*)

Atomic hydrogen generated from the host framework and guest molecules in tetra-n-butylammonium semi-clathrate hydrate is thoroughly examined through ESR spectroscopy. High amount of hydrogen radicals generated in TBABh + H<sub>2</sub>(or N<sub>2</sub>) clathrate hydrate system break the record in our previous ionic hydrate or gas hydrate system. Various atomic hydrogen generation pathways were integrated to maximize the amount of hydrogen radical in this semi-clathrate hydrate system.