

# Air-Stable Emissive Disilenes Protected by Fused-Ring Bulky "Rind" Groups

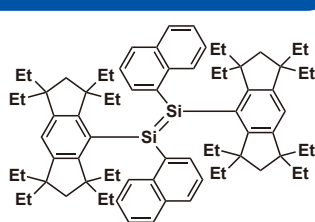
## Advantages

- Prolonged stability under air
- Remarkable emission at room temperature

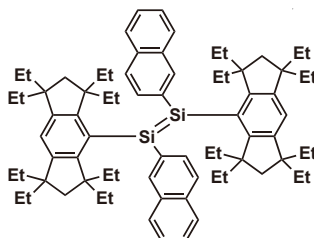
Matsuo and Tamao *et al.* developed novel air-stable disilenes by using bulky groups based on a fused-ring (Rind groups)<sup>1),2)</sup>.

These disilenes show remarkable emission at room temperature, and these are expected to become a new platform for the development of functional organic materials and devices<sup>3)</sup>. For details, please also look at our quarterly journal "TCI mail" No.163.

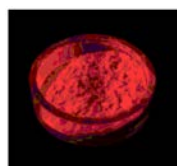
## Emissive disilenes



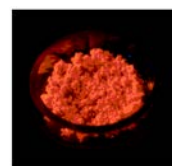
[B4421]



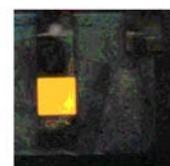
[B4422]



B4421  
Solid-state emission



B4422  
Solid-state emission

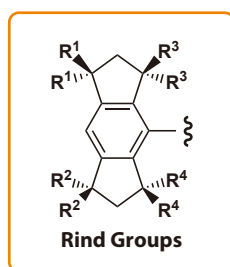


B4422  
Electroluminescence  
(Provided by Prof. Matsuo)

### References

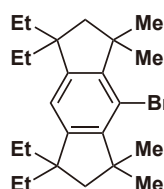
- 1) M. Kobayashi, T. Matsuo, T. Fukunaga, D. Hashizume, H. Fueno, K. Tanaka, K. Tamao, *J. Am. Chem. Soc.* **2010**, *132*, 15162.
- 2) M. Kobayashi, N. Hayakawa, K. Nakabayashi, T. Matsuo, D. Hashizume, H. Fueno, K. Tanaka, K. Tamao, *Chem. Lett.* **2014**, 43,432.
- 3) K. Tamao, M. Kobayashi, T. Matsuo, S. Furukawa, H. Tsuji, *Chem. Commun.* **2012**, *48*, 1030.

## Fused-ring protective groups (Rind groups)<sup>4)</sup>

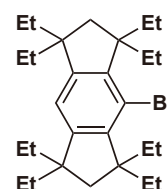


### References

- 4) T. Matsuo, K. Suzuki, T. Fukawa, B. Li, M. Ito, Y. Shoji, T. Otani, L. Li, M. Kobayashi, M. Hachiya, Y. Tahara, D. Hashizume, T. Fukunaga, A. Fukazawa, Y. Li, H. Tsuji, K. Tamao, *Bull. Chem. Soc. Jpn.* **2011**, *84*, 1178.



EMind-Br  
[B4379]



Eind-Br  
[B4380]

- (E)-1,2-Bis(1-naphthyl)-1,2-bis(1,1,3,3,5,5,7,7-octaethyl-1,2,3,5,6,7-hexahydro-s-indacen-4-yl)disilene 10mg [B4421]
- (E)-1,2-Bis(2-naphthyl)-1,2-bis(1,1,3,3,5,5,7,7-octaethyl-1,2,3,5,6,7-hexahydro-s-indacen-4-yl)disilene 50mg [B4422]
- 4-Bromo-1,1,7,7-tetraethyl-1,2,3,5,6,7-hexahydro-3,3,5,5-tetramethyl-s-indacene (EMind-Br) 1g / 5g [B4379]
- 4-Bromo-1,1,3,3,5,5,7,7-octaethyl-1,2,3,5,6,7-hexahydro-s-indacene (Eind-Br) 1g / 5g [B4380]

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