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Cross-Dimerization of Fluorenones for Metal-Free Synthesis of Polyarenes

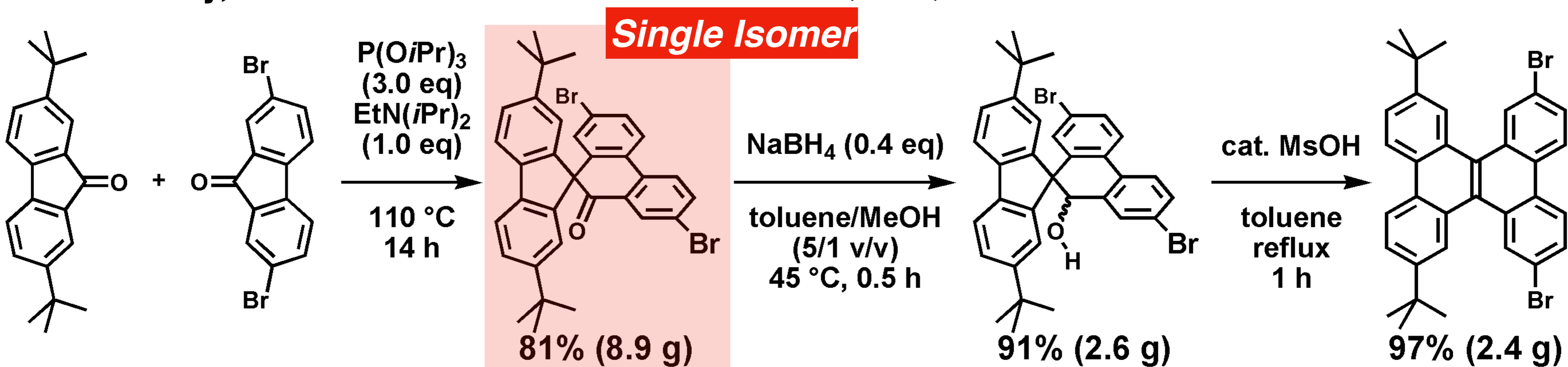
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Here, the paper



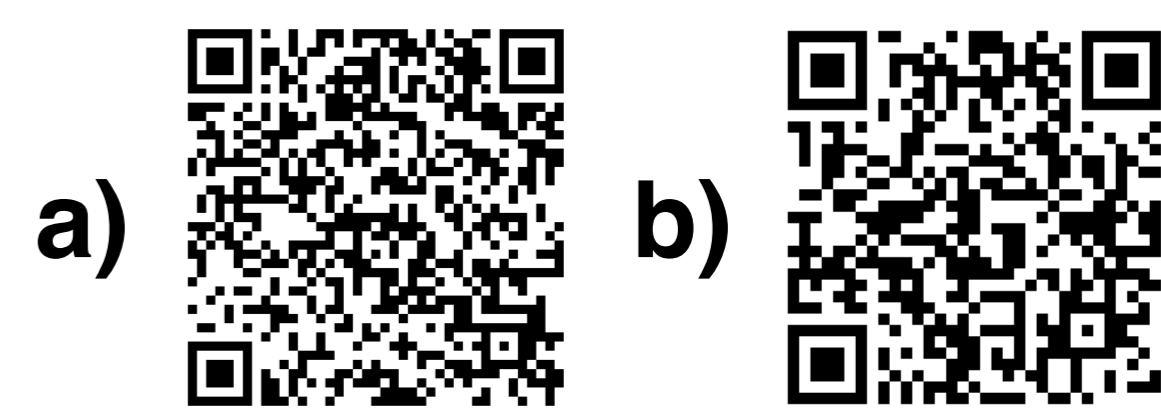
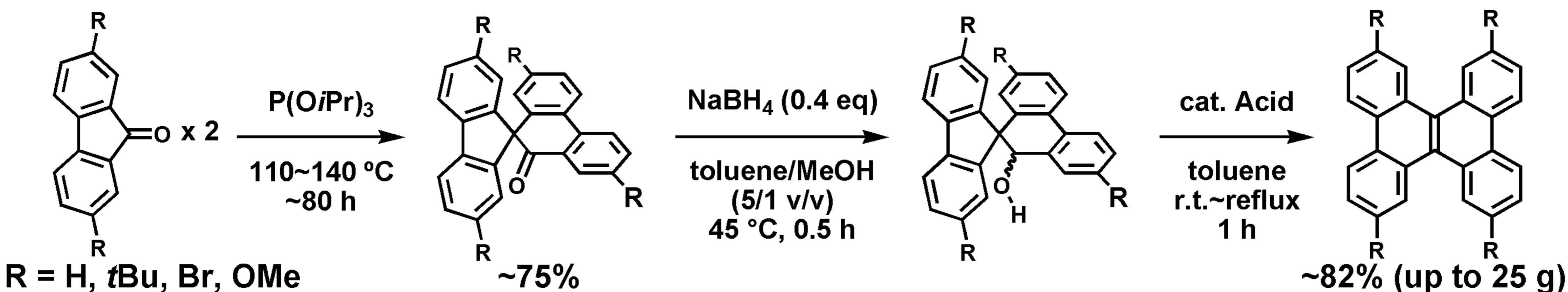
1. Summary, 特願2021-182745: *Tetrahedron* **2023**, *143*, 133549.



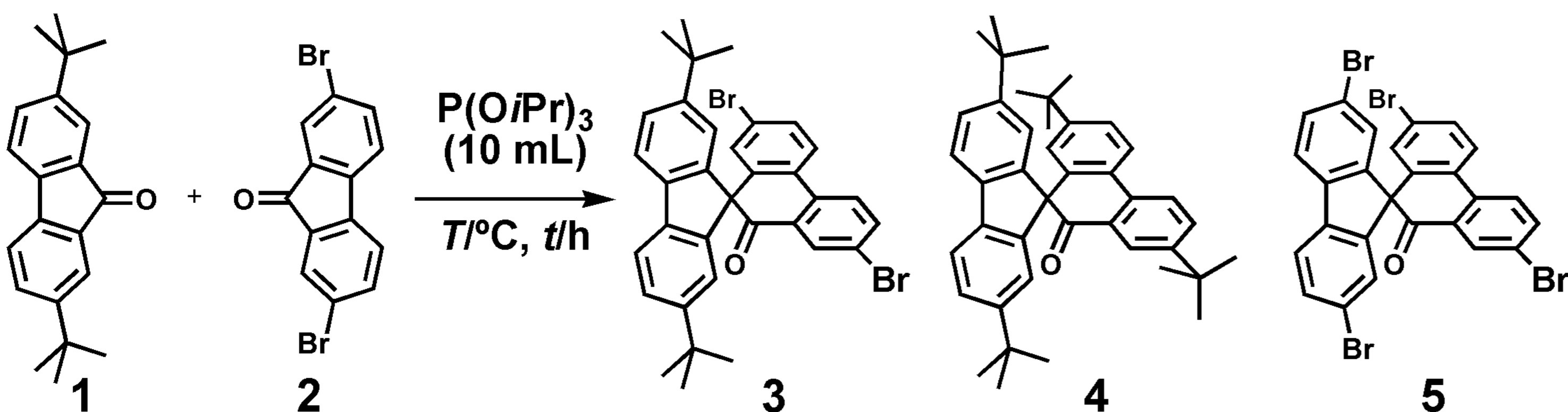
2. Background

a) N. Yoshida, *et. al.*, *Tetrahedron Lett.* **2020**, *61*, 152033.

b) Y. Fujii, *et. al.*, *Tetrahedron* **2021**, *95*, 132353.



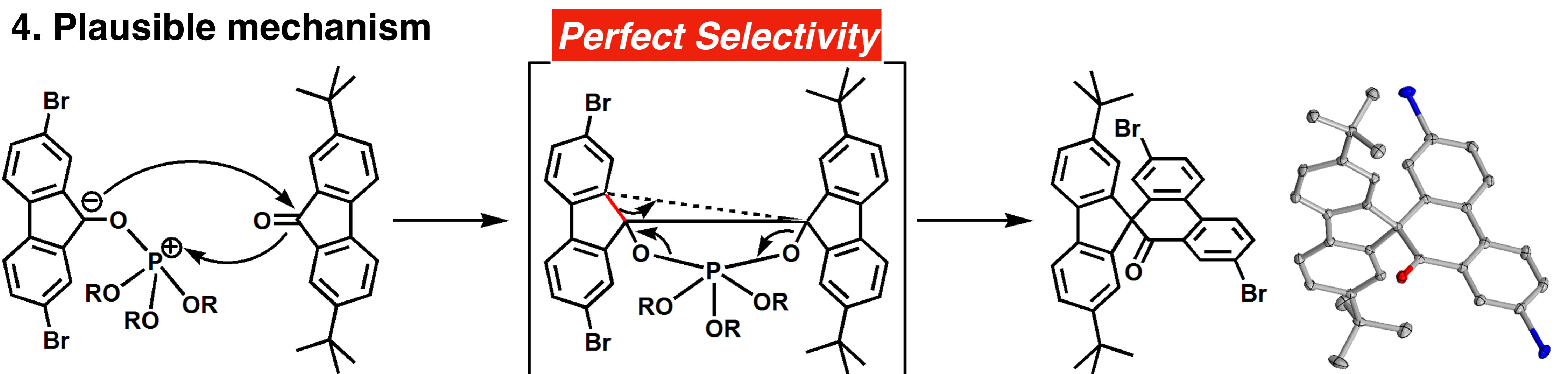
3. Evaluation of reaction conditions for the cross-dimerization



Entry	T/°C	t/h	Yield/%				
			1	2	3	4	5
1	95	24	7	0	48	5	1
2	110	3	33	0	58	1	7
3	140	1	29	0	50	4	11
4 ^[a]	110	3	87	—	—	13	—
5 ^[b]	110	3	—	12	—	—	69

[a] Homo-dimerization of 1 was carried out.
[b] Homo-dimerization of 2 was carried out.

4. Plausible mechanism



5. Effect of substituents on the cross-dimerization

