Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Single crystal X-ray analysis

The single crystals suitable for X-ray diffraction were obtained by recrystallization from EtOH ((*S*)-**1-OH**, (*S*)-**1-OEt** and (*S*)-**2-OEt**) and THF ((*S*)-**2-OH**). Crystals were mounted in a nylon loop with cryoprotectant oil. Crystallographic data and detailed results of refinement are summarized in Table S1. The structure was solved using SIR2008 [S1] and refined using SHELXL (version 97, 2013 or 2014) [S2] with full-matrix least-squares techniques on F^2. Non-hydrogen atoms were refined anisotropically; hydrogen atoms were refined using the riding model. All calculations were performed using Crystal Structure 4.0, 4.1 or 4.2.2 (Crystal Structure Analysis Package, Rigaku, Japan), except for refinement, which was performed using SHELXL (version 97, 2013 or 2014). The image presented herein was generated using ORTEP-32 software [S3].

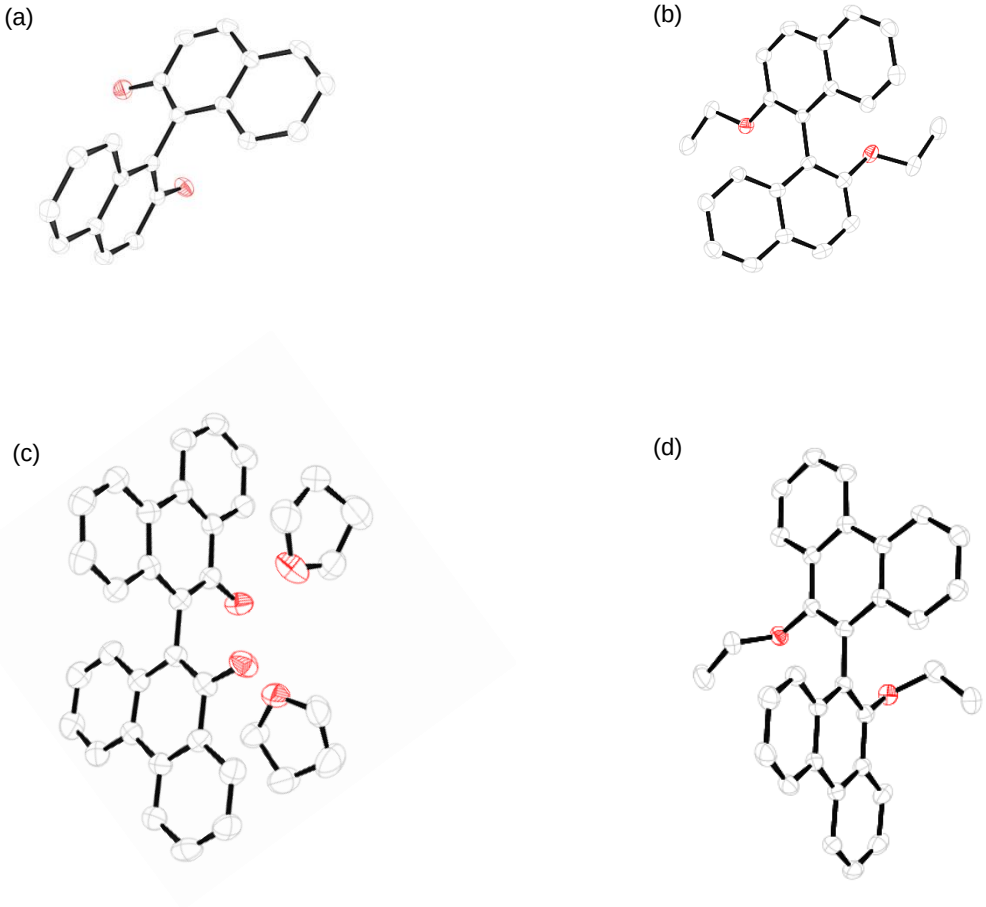

Figure S1. ORTEP drawing of (a) (*S*)-**1-OH**, (b) (*S*)-**1-OEt**, (c) (*S*)-**2-OH**$(THF)_2$, and (d) (*S*)-**2-OEt** (Thermal ellipsoid, 50% probability). All hydrogen atoms are omitted for clarify.

Table S1. Crystallographic data

	(*S*)-**1-OH**	(*S*)-**1-OEt**	(*S*)-**2-OH**$(THF)_2$	(*S*)-**2-OEt**
Recrystallization solvent	EtOH	EtOH	THF	EtOH
Color	colorless	colorless	colorless	colorless
Formula	$C_{20}H_{14}O_2$	$C_{24}H_{22}O_2$	$C_{36}H_{34}O_4$	$C_{32}H_{26}O_2$
F_w	286.33	342.44	530.66	442.56
T / K	296.0	123.2	123.2	296.0
Size of Crystal / mm	0.40 x 0.30 x 0.20	0.15 x 0.10 x 0.10	0.20 x 0.14 x 0.12	0.20 x 0.14 x 0.10
Crystal system	Trigonal	Orthorhombic	Monoclinic	Orthorhombic
Space group	$P3_2$ (#145)	$P2_12_12_1$ (#19)	$P2_1$ (#4)	$P2_12_12_1$ (#19)
a / Å	10.784(3)	7.4219(9)	9.298(4)	9.1002(10)
b / Å	10.784(3)	11.4160(2)	16.710(7)	10.3328(11)
c / Å	10.678(4)	21.338(3)	9.318(4)	25.108(2)
α / Å	90.0000	90.0000	90.0000	90.0000
β / ^{o}	90.0000	90.0000	102.396(9)	90.0000
γ / ^{o}	120.0000	90.0000	90.0000	90.0000
V / Å^3	1075.5(6)	1807.9(4)	1413.8(10)	2360.9(4)
Z	3	4	2	4
D_c / g cm^{-3}	1.326	1.258	1.246	1.245
R_1 [$I > 2\sigma(I)$]	0.0348	0.0503	0.0815	0.0505
wR_2 (for all data)	0.0768	0.0994	0.1896	0.1240
Goodness-of-fit on F^2	1.021	1.095	1.105	1.096

References

[S1] M.C. Burla, R. Caliandro, M. Camalli, B. Carrozzini, G.L. Cascarano, L. De Caro, C. Giacovazzo, G. Polidori, D. Siliqi, R. Spagna, *J. Appl. Crystallogr*., 2007, **40**, 609-613.

[S2] G. M. Sheldrick, *Acta Crystallogr., Sect. A: Found. Crystallogr*., 2008, **64**, 112–122.

[S3] L. J. Ferrugia, *J. Appl. Crystallogr.*, 1997, **30**, 565.