

Table 4. Structural and retrostructural analysis of the Φ_{r-s} and Φ_{r-c} lattices self-organized from (4-3,4-3,5)nG2-CH₂OH, $n = 2-8$

n	$T, ^\circ\text{C}$	$d_{11}, \text{\AA}$	$d_{20}, \text{\AA}$	$d_{31}, \text{\AA}$	$d_{22}, \text{\AA}$	$a, \text{\AA}$	$b, \text{\AA}$	$D_a, \text{\AA}$	$D_b, \text{\AA}$	$\rho_{20},^{**}$ g/cm ³	μ (dendrons/ stratum)	$\alpha',^{§§}$ °
2	65	32.8*	29.5*	17.3*	16.3*	58.9 [‡]	39.1 [‡]	58.9 [¶]	39.1 [¶]	1.12	7.9 ^{††}	45.4
4	85	36.3 [†]		27.7 [†]	20.2 [†]	122.0 [§]	38.1 [§]	70.4	93.5	1.12	7.3 ^{‡‡}	50.5
6	90		38.3 [†]	21.9 [†]	18.9 [†]	79.0 [§]	43.8 [§]	45.6	43.8	1.12	4.8 ^{‡‡}	75.2
8	110		42.6 [†]	24.1 [†]	20.8 [†]	79.3 [§]	47.1 [§]	45.8	47.1	1.1	4.6 ^{‡‡}	77.9

* d -spacings of $p2mm$ rectangular simple columnar lattice (Φ_{r-s}).

[†] d -spacings of $c2mm$ rectangular centered columnar lattice (Φ_{r-c}).

[‡] $p2mm$ rectangular simple columnar lattice parameters a and b , $a = hd$, $b = kd$, ($h0$) and ($k0$) from diffractions.

[§] $c2mm$ rectangular centered columnar lattice parameters a and b , $a = hd$, $b = kd$, ($h0$) and ($k0$) from diffractions.

[¶] Experimental elliptical column diameters of $p2mm$ simple rectangular columnar lattice $D_a = a$ and $D_b = b$.

^{||} Experimental elliptical column diameters of $c2mm$ centered rectangular columnar lattice $D_a = a/\sqrt{3}$ and $D_b = b$.

** ρ_{20} = experimental density at 20 °C.

^{††} Number of monodendrons per elliptical $p2mm$ simple rectangular column stratum $\mu = (N_Aabt\rho)/M$.

^{‡‡} Number of monodendrons per elliptical $c2mm$ centered rectangular column stratum $\mu = (N_Aabt\rho)/2M$. Avogadro's number

$N_A = 6.0220455 \times 10^{23} \text{ mol}^{-1}$. The average height of the column stratum $t = 4.7 \text{ \AA}$, M = molecular weight of monodendron.

^{§§} Projection of the solid angle for tapered monodendron $\alpha' = 360/\mu$ (deg).