## Novel Syntheses and Properties of

## meso-Tetraaryl-octabromo-tetranaphtho[2,3]porphyrins (Ar<sub>4</sub>Br<sub>8</sub>TNPs)

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Porphyrin as free-base	Soret band $\lambda_{max} nm (lg \epsilon)$	$\begin{array}{c} Q \text{ band} \\ \lambda_{max} \text{ nm} \left( lg \ \epsilon \right) \end{array}$	Absorption onset (nm)	Calculated optical gap (eV) <sup>a</sup>
7a	447 (5.01), 483 (5.16), 510 (5.33)	684 (4.43), 734 (5.07)	767	1.62
7b	449 (4.98), 486 (5.10), 513 (5.35)	682 (4.44), 734 (5.08)	786	1.57
7c	453 (4.97), 486 (5.08), 517 (5.31)	686 (4.42), 735 (5.04)	791	1.56
7d	451 (4.94), 486 (5.08), 512 (5.33)	686 (4.39), 740 (5.02)	804	1.54
7e	447 (4.97), 483 (5.09), 510 (5.33)	684 (4.43), 736 (5.06)	790	1.57
<b>7</b> f	445 (5.01), 481 (5.13), 507 (5.37)	684 (4.46), 738 (5.10)	793	1.55

Table S1. UV-vis absorption data of 7a-f as free-bases

<sup>*a*</sup> Calculated as 1240/onset absorption wavelength.

<b>Table S2.</b> UV-VIS absorption data of <b>7a-1</b> as dications					
Porphyrin	Soret band	Q band	Absorption onset	Calculated	
as dication	$\lambda_{max} \operatorname{nm} (\lg \varepsilon)$	$\lambda_{max} nm (lg \epsilon)$	(nm)	optical gap (eV)	
7.	440 (4.73)	703 (4.32)	803	1.54	
/a	534 (5.45)	773 (4.98)	803	1.34	
<b>7</b> b	440 (4.70)	7.03 (4.34)	802	1.55	
70	543 (5.45)	773 (4.95)	802		
7.	440 (4.69)	706 (4.39)	<b>803</b>	1.55	
7 <b>c</b>	555 (5.47)	776 (4.86)	802		
74	450 (4.73)	741 (4.44)	<b>017</b>	1.50	
/a	538 (4.33)	785(4.87)	817	1.32	
7.	441 (4.72)	705 (4.29)	806	1.52	
/e	538 (5.42)	776 (4.97)	800	1.55	
7f	451 (4.74)	713 (4.29)	<b>2</b> 20	1.51	
	532 (5.43)	785 (5.02)	820		



Figure S1. UV-vis absorption spectra of 7a-f as dications



Figure S2. UV-vis absorption spectra of 7c and TMPTNP in CH<sub>2</sub>Cl<sub>2</sub> (TMPTNP was prepared *via* the same procedure)



Figure S3. Thermogravimetric analysis of 7a-f

Tuble 55. Four values of 74 Fon derivative mennogravimenty (16) curves						
	7a	7b	7c	7d	7e	<b>7</b> f
T <sub>5%</sub> <sup>*</sup> (°C)	523	454	505	471	558	561
T max** (°C)	550	450	510	475	560	>600

Table S3. Peak values of 7a-f on derivative thermogravimetry (TG) curves

\* The temperature where the weight loss was 5%. \*\* The temperature where the weight lost at the fast rate.

Spectra of compounds

















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