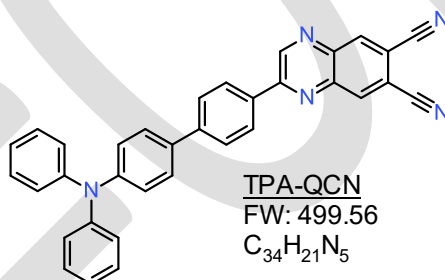




New Material tackles one of the biggest barriers to scaling artificial intelligence

Certificate of Analysis

1M Remark:	TPA-QCN (Triphenylamine–dicyanoquinoxaline), a TADF emitter with exceptional second-order optical nonlinearity
1M Material:	TPA-QCN
CAS No.:	2131049-03-9
Chemical Name:	2-(4'-(Diphenylamino)-[1,1'-biphenyl]-4-yl)quinoxaline-6,7-dicarbonitrile
Chemical Formula:	C ₃₄ H ₂₁ N ₅
Molecular Weight:	499.56
Chemical Structure	

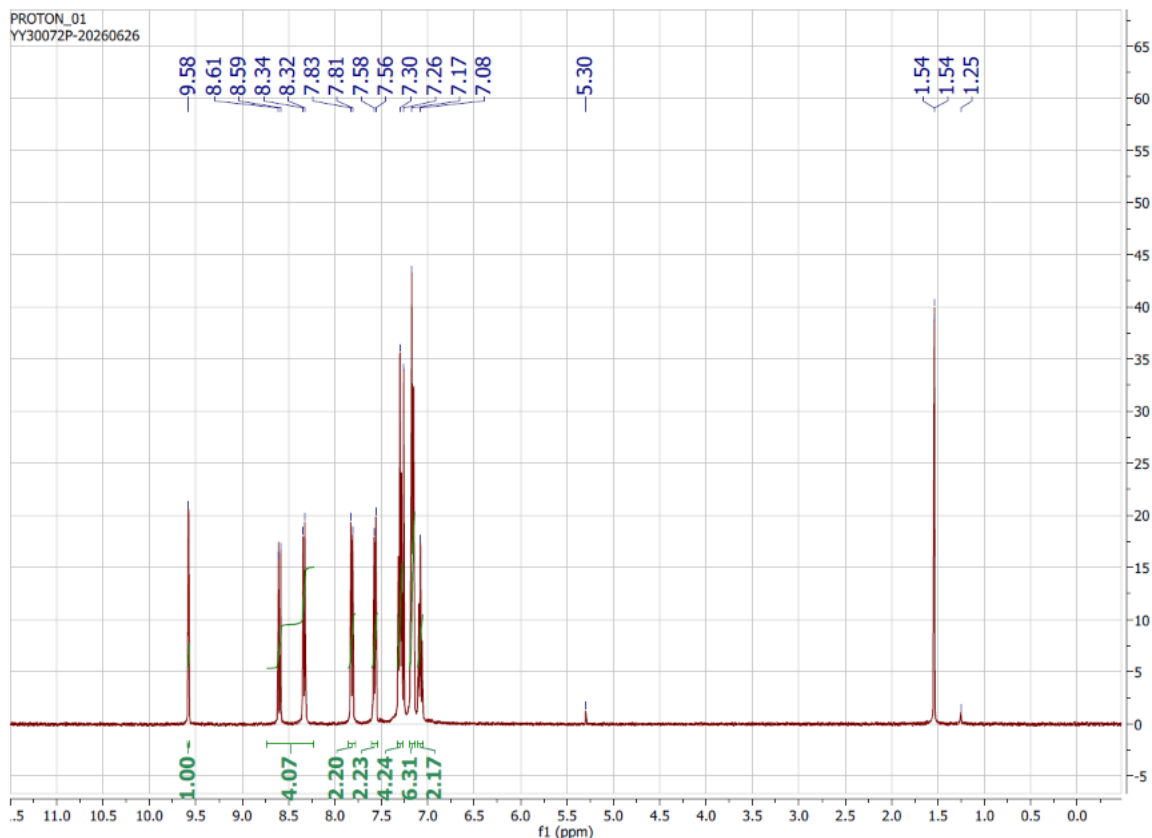


Lot No.	YY30072P
Appearance:	Red solid
Solubility:	Soluble CHCl ₃ , and selected organic solvents
Purity:	99% (NMR)

Application: A self-aligning organic film gives photonic chips new optical functions, reducing the need for extra conversion hardware.

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NMR (internal reference)



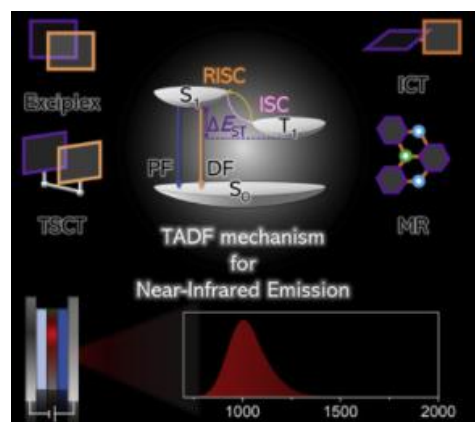
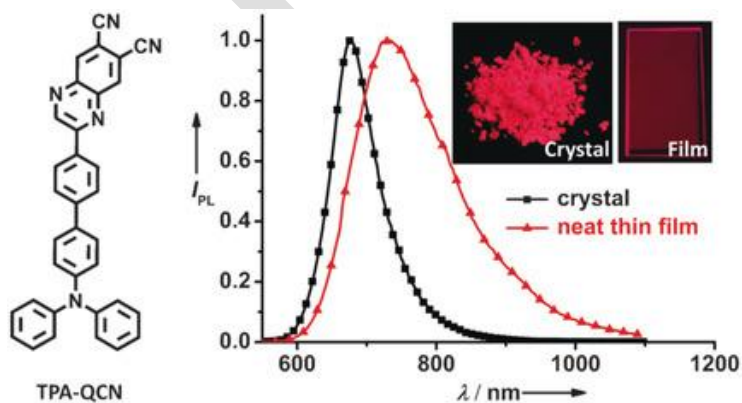
Breakthrough story of TPA-QCN from Montreal

P.-L. Thériault et al., *Sci. Adv.*, 12, eaeg3170 (2026)

[Polytechnique Montréal Team Addresses Major Challenge in Scaling Artificial Intelligence – BioTechGrid](#)

[Organic thin film brings second-order optical nonlinear effects to silicon photonics | Laser Focus World](#)

Publications:



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