

SUPPORTING INFORMATION

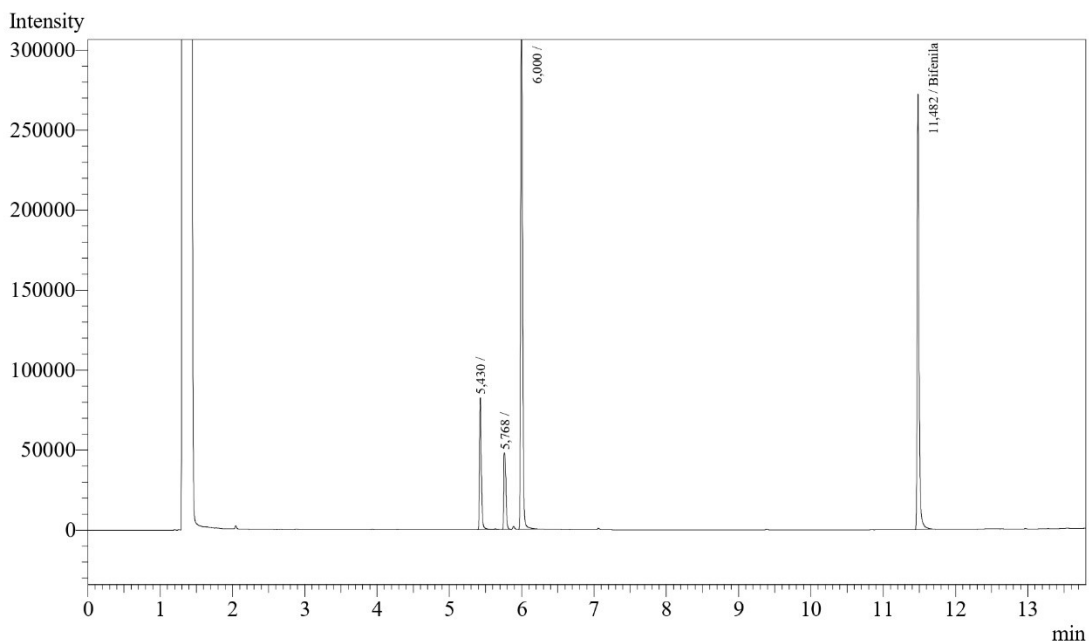
Hydrogen Spillover in N-doped Carbon Coating Improves the Hydrogenation Activity of Nickel Catalysts

*Bruno H. Arpini,^a Jhonatan L. Fiorio,^b João V. F. da Costa,^a Jan-Ole Joswig,^b Liane M.
Rossi^{*a}*

^a Department of Fundamental Chemistry, Institute of Chemistry, University of São Paulo, Av. Prof. Lineu Prestes 781, São Paulo-SP 05508-000

^b Theoretische Chemie, Technische Universität Dresden, 01062 Dresden, Germany

Hydrogen Spillover; Nickel; N-doped carbon; Hydrogenation; Nanomaterials



Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	ID#	Cmpd Name
1	5,430	141544	81187	0,472	mmol.		1	1-ethynyl-4-(trifluoromethyl)benzene
2	5,768	81533	46777	0,000		V	2	1-ethane-4-(trifluoromethyl)benzene
3	6,000	659075	384555	0,000			3	1-ethene-4-(trifluoromethyl)benzene
4	11,482	470790	267799	0,000	mmol.		4	Bifenila
5								
Total		1352942	780318					

Figure S1. Example of the GC data acquisition. Studied molecule in this case: 4-ethynyl- α,α,α -trifluorotoluene; biphenyl as internal standard. The first unnamed peak is the solvent: ethanol.

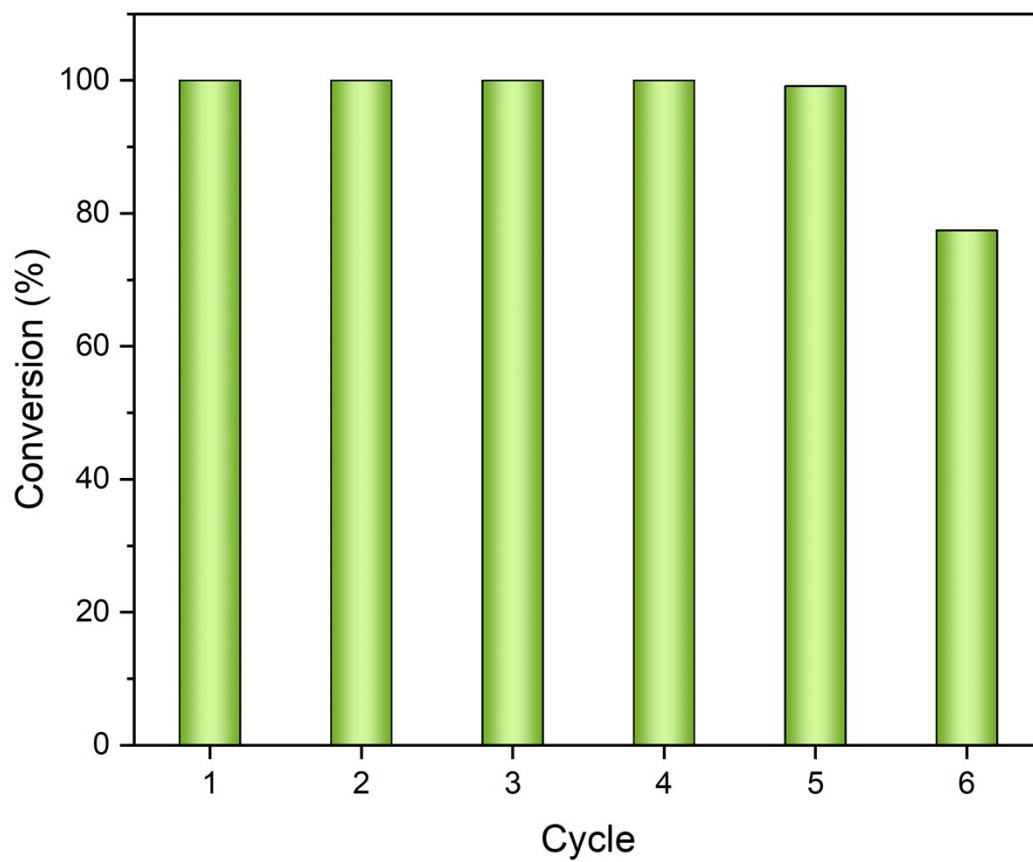


Figure S2. Recycling Ni5@NC/SiO₂ after 6 reactions, the conditions are: 80 °C, 250 min, 6 bar of H_{2(g)}. In the 6 reactions, the hybrid catalyst was washed with EtOH.