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## Oxygen deficient Pr<sub>6</sub>O<sub>11</sub> nanorods supported palladium nanoparticles: highly active nanocatalysts for styrene and 4-nitrophenol hydrogenation reactions

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**Table S1** Comparison of the apparent rate constant *k* for the reduction of 4-NP over different palladium based catalyst systems. The actual weight content of Pd was 1.42 wt%.

Entry	Catalyst	t (min)	k (s <sup>-1</sup> )	Ref.
1	Pd/Pr <sub>6</sub> O <sub>11</sub>	3	0.0191	our study
2	PPy/TiO <sub>2</sub> /Pd	7	0.0122	[48]
3	Al <sub>2</sub> O <sub>3</sub> /Pd	8	0.0112	[49]
4	SPB/Pd	20	0.0441	[50]
5	Fe <sub>3</sub> O <sub>4</sub> @C@PtPd	1.3	0.0202	[51]

k: apparent rate constant; t: conversion time.