

Prabhakar Nagavelli (Reddy)

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Education and Training

Post Doctorate: 1990-1993 NIMC, Japan

1993-1994 Ottawa University, Canada

Ph.D.: 1989 Organometallic Chemistry: Osmania University, Hyderabad, India

M.Sc.: 1983 Organic Chemistry, Kakatiya University, Warangal, India

B.Sc.: 1979 Chemistry, Biology, Kakatiya University, Warangal, India

Teaching experience

Houston Community College: 2013-today

- Introductory chemistry: Corwin Txt book
- General chemistry: Brown *et al* Text book
- Organic chemistry: McMurry Text book

Blinn college: 2016-2019

- Introductory chemistry: Zumdahl
- General Chemistry: McMurry

Lonestar college: 2013-2019

- Introductory chemistry: Stoker Txt book
- General chemistry: Ebbing Txt book

Previous Positions

Product Development and Marketing Manager (2000-present): Carbocore Inc, USA

- More than 200 new potential API molecules were synthesized
- Prepared monomers for functional polymers
- New organic molecules for research and drug screening

Research Scientist (1994-1997): National Institute of Materials and Chemicals, JAPAN

Developed silicon and vinyl-based polymers

Extensive studies on LED materials

NSERC-Canada Fellow (1993-94): Ottawa University, Canada

Developed new protocols for carbamate pesticides

Metal-catalyzed polymerization reactions

STA-Japan Fellow: 1990-93: MITI, Tsukuba, Japan

Developed silicon monomers and polymers

PE and PVC polymers and films

Awards and Distinctions

- NSERC- Canada fellow
- STA-Japan fellow
- AIST-Japan Fellow
- CSIR-India fellow

Publications

1. Palladium catalyzed oxidation of primary and secondary alcohols under solid-liquid phase transfer conditions.
Choudary, B.M.; **Reddy, N. Prabhakar**; Kantam, M. Lakshmi; Jamil, Zafar
Tetrahedron Letters (1985), 26(50), 6257-8
2. Dichlorobis(1,2,5-triphenylphosphole)palladium(II) in carbonylation reactions.
Choudary, B.M.; **Reddy, N. Prabhakar**; Jamil, Zafar
Polyhedron (1986), 5(3), 911-12
3. Palladium catalyzed carbonylation of organic halides: the first example of carbonylation under solid-liquid phase transfer conditions.
Choudary, B. M.; **Reddy, N. Prabhakar**; Ashok, B.
Applied Catalysis (1987), 32(1-2), 357-9
4. Reverse micelles, an alternative to aqueous medium for microbial reactions: yeast mediated resolution of α -amino acids in reverse micelles.
Fadnavis, N. W.; **Reddy, N. Prabhakar**; Bhalerao, U. T.
Journal of Organic Chemistry (1989), 54(13), 3218-21.
5. Polymer-anchored palladium catalyst in carbonylation of organic halides-the first example of tri-phase catalysis.
Reddy, N. Prabhakar; Kantam, M. Lakshmi; Choudary, B. M.
Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1989), 28B (2), 105-6.
6. Cobalt catalyzed carbonylation of organic halides under solid-liquid phase transfer conditions.
Kantam, M. Lakshmi; **Reddy, N. Prabhakar**; Choudary, B. M.
Synthetic Communications (1990), 20(17), 2631-40.
7. Palladium-catalyzed germylation of organic halide with digermane. Unexpected formation of germylene-insertion type products.
Reddy, N. Prabhakar; Hayashi, Teruyuki; Tanaka, Masato
Chemistry Letters (1991), (4), 677-80.
8. Platinum-catalyzed novel reactions of nitriles and azirine with o-bis(dimethylsilyl)benzene.
Reddy, N. Prabhakar; Uchimaru, Yuko; Lautenschlager, Hans Juergen; Tanaka, Masato
Chemistry Letters (1992), (1), 45-8.
9. Synthesis and conductivity of germanium- or silicon-containing polymers
Hayashi, Teruyuki; Uchimaru,Yuko; **Reddy, N. Prabhakar**; Tanaka,Masato
Chemistry Letters (1992), (4), 647-50
10. Palladium-catalyzed ring-opening copolymerization of cyclopolysilanes and cyclic disilanes with p-quinones.
Reddy, N. Prabhakar; Yamashita, Hiroshi; Tanaka, Masato
Journal of the American Chemical Society (1992), 114(16), 6596-7.
11. Reconstruction of backbones of silicon polymers by palladium-catalyzed insertion of quinones into silicon bonds
Hiroshi; **Reddy, N. Prabhakar**; Tanaka, Masato
Macromolecules (1993), 26(8), 2143-4

- 12.** Palladium- or platinum-catalyzed novel double silylation of α -diketones or benzoylformate with hexamethyldisilane affording 1,2-bis(siloxy)ethenes or a double silylated tartrate derivative.
Yamashita, Hiroshi; **Reddy, N. Prabhakar**; Tanaka, Masato
Chemistry Letters (1993), 2, 315-18
- 13.** Silylation of 2- or 3-alkenenitriles with iodosilanes/trimethylamine affording 2- or 4-silyl-2-alkenenitriles
Yamashita, Hiroshi; **Reddy, N. Prabhakar**; Tanaka, Masato
Bulletin of the Chemical Society of Japan (1994), 67(5), 1510-13.
- 14.** Direct reconstruction of the backbone of silicon-containing polymers with acetylenes and dicarbonyl compounds.
Tanaka, Masato; Yamashita, Hiroshi; **Reddy, N. Prabhakar**; Tan, Robin P.
Polymeric Materials and Engineering science (1994), 71, 721-2.
- 15.** Palladium complex–potassium carbonate-catalysed reductive carbonylation of mono- and di-nitroaromatic compounds
Nagavelli P. Reddy, Anna M. Madeu, Bassam L. Ali and Howard Alper
Journal of chemical society, chemical communications (1994), 10, 1865-66
- 16.** Platinum- or Palladium-catalyzed ring-opening homo- and co-polymerization of silicon- and germanium-bridged [1]ferrocenophanes
Nagavelli Prabhakar Reddy, Hiroshi Yamashita and Masato Tanaka
J. chem. Society; chem. Commun. (1995), 22, 2263-64
- 17.** Unexpected cross-metathesis between Si-C and Si-Si bonds
Nagavelli, Prabhakar Reddy, Teruyuki Hayashi and Masato Tanaka
J. chem. Society; chem. Commun. (1996), 16, 1865-66
- 18.** Reactivity of the Si-C Bond of [1]Silaferrocenophane: Palladium-Catalyzed Dimerization and Oxidative Addition to a Pt(0) Complex
Reddy Nagavelli Prabhakar, Choi, Naomi, Shimada Shigeru, Masato Tanaka
Chemistry Letters (1996), 25, 649-50
- 19.** Palladium-catalyzed amination of aryl chlorides
Nagavelli, Prabhakar Reddy; Tanaka, Masato
Tetrahedron Letters (1997) 27, 4807-10
- 20.** Palladium-catalyzed 1,2 and 1,4-quinones into Si-Si bonds and its application to the modification of Si-Si bond containing polymers.
Organometallics (1997), 16(24), 5223-5233.
Yamashita, Hiroshi; **Reddy, N. Prabhakar**; Tanaka, Masato