(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/05/2022

(21) Application No.202211030703 A
(43) Publication Date : 03/06/2022

(54) Title of the invention : A NOVEL SYNTHESIS OF METALLIC SILVER NANOPARTICLES, CHARACTERIZATION AND METHOD THEREOF

(51) International classification :B82Y0030000000, A61K0009510000, A01N0059160000, C12N0015110000, A61K0033380000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)Mr. Mrigendra Amb
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
2)Prof. Intezar Mahdi
3)Dr. Nabeel Ahmad
4)Mr. Hemant Kumar Mishra
5)Mr. Dharmaraj Singh
6)Mr. Nadeem Ahmad
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Mr. Mrigendra Amb
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
2)Prof. Intezar Mahdi
Address of Applicant :Director, School of Engineering and Technology, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
3)Dr. Nabeel Ahmad
Address of Applicant :Head, School of Biotechnology, SBT, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
4)Mr. Hemant Kumar Mishra
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
5)Mr. Dharmaraj Singh
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------
6)Mr. Nadeem Ahmad
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, SET, IFTM University, Moradabad, UP 244102 Moradabad ---------- ----------

(57) Abstract :
The present invention discloses a novel synthesis of metallic silver nanoparticles, characterization and method thereof. a novel and rapid green biogenesis production of sliver nanoparticles by using extract of C. roseus. The developed process is fast and better from previously known processes and the size of the synthesized nanoparticles were much smaller than other previously known methods of synthesizing nanoparticles. The primary confirmation is done by qualitative analysis i.e., change of brownish color within 5 min and after 15 min. it turns in to dark reddish brown. The reduction of silver nanoparticles was also confirmed by UV-Vis spectrophotometer- as the maximum absorbance of UV-Vis spectra were found at around ~425 nm. The average size of the synthesized nanoparticles was approximately 11 nm. These nanoparticles can be used as a drug for various diseases like antimicrobial, antifungal and cancer treatment. Due to the smaller size these nanoparticles have great tendency to penetrate the tumors especially for cancer cell.

No. of Pages : 26 No. of Claims : 6