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(54) Title of the invention : SYNTHESIS, CHARACTERIZATION, AND CADMIUM TOXICITY REDUCTION OF ARYL ACRYLIC ACID SUBSTITUTED DERIVATIVES IN BIOLOGICAL SAMPLES

<p>(51) International classification :A61P0013120000, A61P0011000000, A61P0009100000, C07D0405040000, A61P0001160000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Dr Kapil Pandey Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India ----- 2)Dr Richa Saxena 3)Dr Narender Singh 4)Ms. Swati Gupta 5)Mr. Jitendra Pal Singh 6)Dr Rajan Singh 7)Dr Tarun Kanti Sarkar Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr Kapil Pandey Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India - ----- 2)Dr Richa Saxena Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India - ----- 3)Dr Narender Singh Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India - ----- 4)Ms. Swati Gupta Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India - ----- 5)Mr. Jitendra Pal Singh Address of Applicant :Assistant Professor, Department of Physics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India - ----- 6)Dr Rajan Singh Address of Applicant :Assistant Professor, Department of Mathematics, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India ----- 7)Dr Tarun Kanti Sarkar Address of Applicant :Assistant Professor, Department of Chemistry, School of Sciences, IFTM University, Moradabad, Uttar Pradesh, 244102, India -----</p>
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(57) Abstract :

ABSTRACT The present invention relates synthesis, characterization, and cadmium toxicity reduction of aryl acrylic acid substituted derivatives in biological samples. The invention provides the method for the synthesis of substituted aryl acrylic acid derivatives. The invention also discloses that a-mercapto-β-acrylic acid derivatives are effective in reducing cadmium levels in blood and tissues. The cadmium levels decreases after treatment with a-mercapto-β-aryl acrylic acid derivatives in blood and tissues in all groups. The thiol level lowers in the plasma, liver, and renal tissues of the cadmium-exposed group. The invention also discloses that a-Mercapto-β-m- methoxy, (p-hydroxy phenyl) acrylic acid shows significant anti-oxidant activity.

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