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Newly developed controlled release subcutaneous formulation for tramadol hydrochloride**Mostafa Mabrouk^{1,4}, Hanan H. Beherei^{1,4}, Shaimaa ElShebiny^{2,4} and Masaru Tanaka^{3,4}**

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Corresponding Author**Dr. Mostafa Mabrouk****PhD of chemistry****National Research Centre,****E-mail: mostafamabrouk.nrc@gmail.com****Mobile No.: 0201097302384****Newly developed controlled release subcutaneous formulation for tramadol hydrochloride****Abstract**

This study presents a drug delivery system of poly (ϵ -caprolactone) (PCL) ribbons to optimize the pharmaceutical action of tramadol for the first time according to our knowledge. PCL ribbons were fabricated and loaded with tramadol HCl. Ribbons were prepared by slip casting technique and coated with dipping technique with β -cyclodextrin. The chemical integrity and surface morphology of the ribbons were confirmed using FTIR and SEM

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