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PII: S0167-577X(17)31781-0  
DOI: <https://doi.org/10.1016/j.matlet.2017.12.023>  
Reference: MLBLUE 23521

To appear in: *Materials Letters*

Received Date: 16 November 2017  
Revised Date: 2 December 2017  
Accepted Date: 5 December 2017

Please cite this article as: K. Jelonek, P. Karpeta, J. Jaworska, M. Pastusiak, J. Włodarczyk, J. Kasperczyk, P. Dobrzyński, Comparison of extraction methods of sirolimus from polymeric coatings of bioresorbable vascular scaffolds, *Materials Letters* (2017), doi: <https://doi.org/10.1016/j.matlet.2017.12.023>

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**Comparison of extraction methods of sirolimus from polymeric coatings of bioresorbable vascular scaffolds**

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**Abstract**

Sirolimus (rapamycin) is a antiproliferative drug used in vascular scaffolds for prevention of restenosis. Nowadays, the new generation of biodegradable drug-eluting vascular scaffold is extensively developed. However, the effective method for isolation of drug from a scaffold has not been developed yet. This procedure is important because it determines accuracy of quantitative assessment of drug, which is essential for evaluation of its dose or drug remained in the device after degradation. Therefore, the aim of the study was to develop the reliable method dedicated to bioresorbable scaffolds obtained from aliphatic polyesters and polyesterocarbonates for quantitative analysis of sirolimus. The results showed good precision of the extraction with the use of solvents and time-dependency of the sonication.

**Keywords**

Sirolimus, bioresorbable scaffold, biodegradable polymers, extraction, drug-eluting scaffold

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