



## Your browser is outdated

Update your browser to view ScienceDirect correctly.

Check supported brow... ↗

Your technical details and browser version:

**Request ID:** 96f3f81d8db8bfdf-FRA **IP:** 178.214.4.5 **UTC time:** 2025-08-14T22:43:06+00:00 **Browser:** Mozilla/5.0 (X11; Linux x86\_64) Miniature.io/6.0 AppleWebKit/537.36 (KHTML, like Gecko) QtWebEngine/5.12.4 Chrome/69.0.3497.128 Safari/537.36



All content on this site: Copyright © 2024 Elsevier B.V., its licensors, and contributors. All rights are reserved, including those for text and data mining, Al training, and similar technologies. For all open access content, the relevant licensing terms apply.