

**Narrowband internet of things (NB-IoT) : from physical (PHY) and media access control (MAC) layers perspectives**  
**Mwakwata, Collins Burton; Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Pärand, Sven; Mumtaz, Shahid**  
Sensors 2019 / art. 2613, 34 p.: ill <https://doi.org/10.3390/s19112613> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Narrowband Internet of Things (NB-IoT) : from physical (PHY) and Media Access Control (MAC) layers perspectives : [an article in collection]**

**Mwakwata, Collins Burton; Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Pärand, Sven; Mumtaz, Shahid**  
Internet of things and sensors networks in 5G wireless communications 2020 / p. 39-72 : ill <https://doi.org/10.3390/books978-3-03928-149-7> <https://doi.org/10.3390/s19112613>