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| **Published Researches**  **الأبحاث المنشورة** | |
| Title  **عنوان البحث** | * Comparative study of polypropylene nonwoven on structure and wetting characteristics |
| Author  **الناشر** | * Abeer Alassod, Guangbiao Xu |
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| Link  **رابط البحث من موقع المجلة** | * <https://doi.org/10.1080/00405000.2020.1821983> |
| Abstract  **خلاصة** | * In this work, different forms of polypropylene nonwoven sorbents based on the melt-blown method (MB), spun-bond method (SB), and needle punch method (NP) were used as comparative materials. Different forms of polypropylene nonwoven sorbents were evaluated in terms of oil sorption, retention, wetting, and wicking. The analysis indicates that wicking is a result of wetting behavior. Among sorbents, MB possessed higher height for soybean oil and motor oil. Moreover, it takes more time for oil spreading compared with the SB and NP according to different forms of nonwoven sorbents and oil properties. On the other hand, the experimental results revealed that the highest oil sorption and retention were registered by MB, followed by SB and NP. The investigation revealed that different pore sizes, sorbents porosity, and oil properties played an important role in oil sorption performance. |