



## Spotlight on EMF Research

# Literaturliste 2025/1 (01.2025 bis 03.2025)

Dies ist die Liste der zwischen Januar 2025 und März 2025 gesichteten Publikationen, aus denen Artikel ausgewählt wurden, um sie im Rahmen von „Spotlight on EMF Research“ zu besprechen. Die Liste ist nach Kategorien (= Frequenzbereich, Studiendesign) und anschließend nach Namen sortiert. Die Zahl in Klammern gibt die Menge der Publikationen in der jeweiligen Kategorie an. Informationen über „Spotlight on EMF Research“ finden Sie auf der [BfS-Homepage](#).

This is the list of publications screened between January 2025 and March 2025, from which we selected articles to be reviewed in our „Spotlight on EMF Research“ series. The list is sorted by category (= frequency range, study design) and on a second level by name. The number of publications in a specific category is given in parentheses.

Please find more information on „Spotlight on EMF Research“ on the [BfS website](#).

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## Across frequencies (31)

### across frequencies – animal study (3)

As N, Karan Y, Dizman S, Sayi BC, Kuvanci A, Cinbirtoglu S, Ozturk SH, Sahin ME. **An experimental study on the effect of non-ionizing electromagnetic fields on honey bees.** *Electromagnetic biology and medicine.* 2025;44(1):65–78. <https://doi.org/10.1080/15368378.2024.2445109>

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### across frequencies – dosimetry/exposure (11)

Aciu LE, Ghita-Pîrnuta OA, Ogrutan PL. **Methods Used to Increase and Promote the Academic Interest of the Electromagnetic Compatibility Course Content in the Engineers' Education.** *Tem Journal-Technology Education Management Informatics.* 2024;13(4):3250–3258. <https://doi.org/10.18421/Tem134-59>

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Ramya K, Gopalakrishnan J, Chokkalingam B, Verma R, Mihet-Popa L. **A Complete Review of Electromagnetic Interference in Electric Vehicle.** *IEEE Access.* 2025;eFIRST-2025-01:1–1. <https://doi.org/10.1109/access.2025.3534017>

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Bordarie J, Ledent M, Dieudonne M, Choisay F, De Clercq E. **Could electrohypersensitivity be a specific form of high sensory processing sensitivity?** *Frontiers in public health.* 2025;13:1550427. <https://doi.org/10.3389/fpubh.2025.1550427>

#### across frequencies – in vitro study (2)

Xu JJ, Wang D, Yang GJ, Yuan YJ, Wang SJ. **Bactericidal mechanisms of radio frequency energy combined with UV light against spores based on low-moisture food substitutes.** *Innovative Food Science & Emerging Technologies.* 2025;102:103981. <https://doi.org/10.1016/j.ifset.2025.103981>

Zheng Y, Wang M, Dong L, Tian C, Qi D, Chen Y. **Effect of three different frequencies of micro-magnetic stimulation on the neuronal electrical activity of the hippocampal CA1 neurons in mice.** *Neuroscience.* 2025;571:96–107. <https://doi.org/10.1016/j.neuroscience.2025.02.057>

#### across frequencies – plant study (0)

#### across frequencies – review (10)

Erboz A, Kesekler E, Gentili PL, Uversky VN, Coskuner-Weber O. **Electromagnetic radiation and biophoton emission in neuronal communication and neurodegenerative diseases.** *Progress in biophysics and molecular biology.* 2025;195:87–99. <https://doi.org/10.1016/j.pbiomolbio.2024.12.004>

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Benediktová K, Iakovenko N, Adámková J, Bartos L, Brinkeová H, Hart V, Bartosová J, Burda H. **Solitary working hunting dogs show a higher tendency for magnetic alignment, with decreased alignment in older dogs.** *Applied Animal Behaviour Science.* 2025;285:106575. <https://doi.org/10.1016/j.applanim.2025.106575>

Chueshova NV, Schemelev VM, Vismont FI, Cheshik IA. **Changes in the Content of Dopamine, Serotonin, Their Pre Currents and Derivatives in the Prefrontal Cortex of the Brain of Young Male Rats under Chronic Exposure to Low-Intense Electromagnetic Field.** *Doklady Natsionalnoi Akademii Nauk Belarusi.* 2024;68(5):381–389. <https://doi.org/10.29235/1561-8323-2024-68-5-381-389>

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Lin Y, Lang H, Gao P, Miao X, Guo Q, Hao Y, Ai T, Li J, Zhang J, Guo G. **Electromagnetic pulse exposure induces neuroinflammation and blood-brain barrier disruption by activating the NLRP3 inflamasome/NF-kappaB signaling pathway in mice.** *Ecotoxicology and environmental safety.* 2025;292:117972. <https://doi.org/10.1016/j.ecoenv.2025.117972>

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## low frequency – dosimetry/exposure (17)

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- Grbic M, Canova A, Giaccone L, Pavlovic A, Grasso S. **Mitigation of Low Frequency Magnetic Field Emitted by 10/0.4 kV Substation in the School.** *International Journal of Numerical Modelling*. 2025;38(2):e70015. <https://doi.org/10.1002/jnm.70015>
- Hammen L, Pichon L, Le Bihan Y, Bensetti M, Fleury G. **Electromagnetic compatibility of active cardiovascular implants to occupational magnetic field environments: impact of the field direction.** *Comptes Rendus Physique*. 2025;25(S1):75–86. <https://doi.org/10.5802/crphys.187>
- Kangasmaa O, Laakso I, Schmid G. **Estimating Human Fat and Muscle Conductivity From 100 Hz to 1 MHz Using Measurements and Modelling.** *Bioelectromagnetics*. 2025;46(1):e22541. <https://doi.org/10.1002/bem.22541>
- Li QX, Yang GH, Zhuang CJ, Zhang Y, Lyu W, Zhang B, He JL. **On the Application of the Guided-Wave Approach to Reproduce the Electromagnetic Fields Radiated by Precursory Pulses in Altitude-Triggered Lightning.** *Ieee Transactions on Electromagnetic Compatibility*. 2024;eFIRST-2024-12. <https://doi.org/10.1109/Temc.2024.3507793>
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- Pan D, Wen DY, Guo X, Song H, Bai SP. **Factors Influencing the Sterilization of <i>E. coli</i> in a High-Voltage Electric Field: Electric Field Strength, Temperature and Humidity.** *Processes*. 2025;13(2):551. <https://doi.org/10.3390/pr13020551>
- Petkova H, Shalamanova T, Simionov R. **Simulation of magnetic field exposure from built-in transformers: possible methods for reducing exposure.** *European Physical Journal-Special Topics*. 2025;eFIRST-2025-02. <https://doi.org/10.1140/epjs/s11734-025-01473-7>
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- Yu XY, Yang JR, Su Y, Song LY, Wei CZ, Cheng YJ, Liu YX. **A Study on the Electromagnetic Environment and Experimental Simulation of Electrified Railroad Mobile Catenary.** *Sustainability*. 2025;17(4):1518. <https://doi.org/10.3390/su17041518>

## low frequency – epidemiology (4)

- Ashton D. **Self-diagnosing electromagnetic hypersensitivity—A case study.** *Frontiers in Public Health*. 2025;13:1535513. <https://doi.org/10.3389/fpubh.2025.1535513>

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<https://doi.org/10.1016/j.jsr.2024.09.008>

### low frequency – human study (3)

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### low frequency – in vitro study (17)

Awasthi K, Huang WC, Wei CY, Hsu HY, Ohta N. **Unveiling the susceptibility of nanosecond pulsed electric field on intracellular function in breast cancerous and normal cells using fluorescence imaging.** *Biosensors & bioelectronics.* 2025;272:117129. <https://doi.org/10.1016/j.bios.2025.117129>

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