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""2.1. Preamble""2.2. Layered transition metal oxides as positive electrode materials for Li-ion batteries: from LiCoO₂ to Li_{1+x}M_{1-x}O₂""; ""2.2.1. The layered oxide LiCoO₂: the starting point""; ""2.2.2. From LiNiO₂, initially explored as an alternative to LiCoO₂, to the commercialization of LiNi_{0.80}Co_{0.15}Al_{0.05}O₂ (NCA) and LiNi_{1/3}Mn_{1/3}Co_{1/3}O₂ (NMC)""; ""2.2.3. Electrode/electrolyte interfaces and aging phenomena in layered oxides""; ""2.2.4. High-capacity Li-rich layered oxides""; ""2.2.4.1. Toward unprecedented gravimetric capacities""; ""2.2.4.2. Surface phenomena and electrode/electrolyte interface stabilization""; ""2.2.4.3. Conclusion""; ""2.3. Alternatives to layered oxides""; ""2.3.1. Materials with spinel structure: from LiMn₂O₄ to LiNi_{1/2}Mn_{3/2}O₄""; ""2.3.1.1. LiMn₂O₄, a material with three-dimensional structure""; ""2.3.1.2. Dissolution of LiMn₂O₄ at the interface with the electrolyte""; ""2.3.1.3. LiNi_{0.5}Mn_{1.5}O₄: toward high potentials""; ""2.3.1.4. Improving the electrode/electrolyte interface at high potential""; ""2.3.2. The olivine phase LiFePO₄: a small revolution""; ""Conclusion""; ""Bibliography""; ""Index""
