Sustainable Materials in Artificial Lighting Units

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Abstract:
Sustainability has become a global trend and its application in all areas of life has become necessary to meet the needs of the present while preserving the future’s right to natural resources and energy sources. An indispensable design field is the design of artificial lighting units. The research problem is that the poor choice of materials causes a disruption to the ecosystem and the principles of sustainability, as it causes harmful environmental, health, economic and social effects, and also causes the waste of natural resources. Therefore, it is necessary to inform the designers of the most important sustainable materials to help them move towards cleaner production in the design of lighting units. The research aims to identify the most sustainable materials in the field of designing artificial lighting units, presenting models for the use of these materials in the implementation of products, the research methodology, the inductive approach through previous studies and scientific references, and the analytical descriptive approach to identify sustainable materials in the design of artificial lighting units, The importance of research in the suitability of artificial lighting units to the environment is further clear by choosing sustainable materials, and the research results are identifying the considerations for choosing sustainable materials (which include the materials being natural, with a long life span, recyclable and better to be recycled material and being materials that are not harmful to the environment or living organisms and to be a material with limited and local energy consumption), and getting to know the classification of sustainable materials that can be used in the design and implementation of artificial lighting units.

Keywords:
Sustainable Materials, Artificial Lighting, Sustainability, Lighting Units

References:
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