

Production of high-transparent MgO films by radio-frequency sputtering method

Yüksek geçirgen MgO filmlerin radyo frekansı saçıtırma yöntemiyle üretimi

Fatih ŞENASLAN^{*1,a}, Ayhan ÇELİK^{2,b}, Muharrem TAŞDEMİR^{1,c}

¹Gümüşhane University, Engineering and Natural Sciences Faculty, Department of Mechanical Engineering, 29100, Gümüşhane

²Atatürk University, Engineering Faculty, Department of Mechanical Engineering, 25240, Erzurum

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Erratum

In the article with "Şenaslan, F., Çelik, A. & Taşdemir, M. (2022). Production of high-transparent MgO films by radio-frequency sputtering method. Gümüşhane University Journal of Science, 12(1), 320-326. DOI: 10.17714/gumusfenbil.1006430" citation information which was published in the first issue of the twelve volume of the Gümüşhane University Journal of Science, it was noticed that the "4. Conclusion (4. Sonuçlar)" section of the acceptance article Publisher was unintentionally removed by preparing for a publish, although authors given a "4. Conclusion (4. Sonuçlar)" section in the acceptance article. We apologize to the readers for the mistake. In this erratum, the unintentionally removed conclusion section is presented in the related article.

Düzeltilme

Gümüşhane Üniversitesi Fen Bilimleri Dergisi'nin onikinci cildinin birinci sayısında yer alan "Şenaslan, F., Çelik, A. & Taşdemir, M. (2022). Production of high-transparent MgO films by radio-frequency sputtering method. Gümüşhane Üniversitesi Fen Bilimleri Dergisi, 12(1), 320-326. DOI: 10.17714/gumusfenbil.1006430" referanslı makalenin kabul metninde yazarlar tarafından "4. Conclusion (4. Sonuçlar)" bölümü verilmesine rağmen makale yayına hazırlanma aşamasındayken sehven çıkarıldığı fark edilmiştir. Yapılan bu hatadan dolayı okuyucularımızdan özür dileriz. Bu düzeltme yazısında ilgili makalenin metin içerisinde sehven çıkarılan "4. Conclusion (4. Sonuçlar)" bölümü sunulmuştur.

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^{*a} Fatih ŞENASLAN; fsenaslan@gumushane.edu.tr, Tel: (0456) 233 10 00, orcid.org/0000-0003-0498-6332

^b orcid.org/0000-0002-8096-0794

^c orcid.org/0000-0003-3291-108X

4. Conclusion

4. Sonuçlar

In this study, high-transparent MgO thin films were successfully produced by RF magnetron sputtering method. The produced films were annealed at 400 °C for 4h. The obtained results are given below. The deposition rate of MgO films decreased with the increasing working pressure. XRD data revealed that the annealing process considerably increased the crystallinity of the MgO film. The

crystallization rate of the films decreased while the crystal quality relatively increased with increasing working pressure. Uv–Vis spectroscopy showed that the working pressure was highly effective on the optical properties of MgO films. The optical transmittance of the films increased with increasing working pressure and reached approximately 97% at 600 nm wavelength for the 10 mTorr growth condition. The band gap energy expanded with the effect of increasing working pressure.