**Ankara Üniversitesi
Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

Ders izlence Formu

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| Dersin Kodu ve İsmi | 101611 Retrospective Dosimetry |
| Dersin Sorumlusu | Dr. Georgios Polymeris |
| Dersin Düzeyi | Yüksek Lisans |
| Dersin Kredisi | Ulusal: 3, AKTS: 6 |
| Dersin Türü | Theoretical |
| Dersin İçeriği | 1. Structural imperfection related luminescence occurrence mechanism at solids
2. Energy band and limited energy levels, electron traps and recombination centers.
3. Thermal and optically stimulated luminescence mechanisms, energy-dose dependency.
4. zeroing mechanisms, glow curves and analysis
5. Determination of trap parameters of first and general order kinetic glow curves.
6. Tunneling and non-thermal quenching.
7. Trap occurrence mechanisms and determination of trap parameters.
8. Stimulation control mechanism.
9. Light detection (PMT and single photon counter).
10. Internal irradiation system(irradiating with beta and photon sources), application fields and limitations
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| Dersin Amacı | Providing theoretical knowledge about thermally and optically stimulated luminescence methods after a nuclear accident or precipitation retrospective dosimetry, age determination and in environmental research areas. |
| Dersin Süresi | 1 term (4 hours weekly) |
| Eğitim Dili | English |
| Ön Koşul | Yok |
| Önerilen Kaynaklar |  **1.** SWS McKeever, Thermoluminescence of Solids, Cambridge Uni. Press (1985)**2.** Aitken, M.J., 1998. An Introduction to Optical Dating. Oxford University Press, Oxford.3. Aitken, M.J., 1985. Thermoluminescence Dating. Oxford University Press, Oxford. |