

# 24. BÖLÜM

## Toksikolojik Analizler İçin Kromatografik Kütüphanelere Güncel Yaklaşımlar

Duygu Yeşim KARABULUT<sup>1</sup>  
Hasan ERTAŞ<sup>2</sup>

Analitik toksikolojide yöntem seçimi, çözülecek problemlere bağlıdır. Analitik strateji, genellikle, nicel tayinden önce bir tarama ve bir doğrulama testi içermektedir. Tarama yöntemi olarak çoğu kez, az sayıda madde sınıfı için mevcut olan immünoassay yöntemleri tercih edilmektedir. Tek bir madde veya madde sınıfının izlenmesi gerekiyorsa, immünoolojik testler, negatif ve pozitif örnekler arasında ayırımın sağlanabilmesi için ön tarama da kullanılmaktadır. Pozitif sonuçlar ise, en az tarama testi kadar hassas olan ve sonuçta en yüksek düzeyde güven sağlayan ikinci bir bağımsız yöntemle doğrulanmaktadır. Analitik toksikolojide en yaygın kullanılan referans doğrulama yöntemi, Gaz Kromatografisi-Kütle Spektrometrisi (GC-MS) olmuştur (1). Ancak uçucu olmayan ve polar maddelerin, GC-MS ile analizi için zahmetli ve zaman alıcı türevlendirme adımları içermesi nedeniyle bazı sınırlandırmalarla karşılaşmaktadır. Ayrıca günümüzde imalatı ve tüketimi artan yeni yasal veya yasadışı madde varlığı nedeniyle, klinik ve adli vakalarda ksenobiyotiklerin belirlenmesi için bu maddelere yönelik hızlı ve güvenilir tarama yöntemlerine ihtiyaç artmaktadır. **Analitik kimyadaki mevcut eğilim**, birçok bileşiğin tek bir çalışmada eşzamanlı olarak belirlenmesi ile bunların oluşumu hakkında önemli bilgiler sağlayan ve ana-

<sup>1</sup> Öğr. Gör., Ege Üniversitesi Madde Bağımlılığı, Toksikoloji ve İlaç Bilimleri Enstitüsü, yesim.karabulut90@gmail.com, duygu.yesim.karabulut@ege.edu.tr

<sup>2</sup> Doç. Dr., Ege Üniversitesi Fen Fakültesi Kimya Bölümü, Analitik Kimya AD, hasan.ertas@ege.edu.tr

teknolojik avantaja sahip enstrümantal cihazların sunduğu ve gün geçtikçe kullanıcı dostu olan kromatografik sistemlerde bir bileşiğin kimliğine ilişkin nihai karar; kimyasal, analitik ve toksikolojik özellikleri dikkate alarak ölçülen bileşiğin tam kütle spektrumu ile referans spektrumları arasında görsel bir karşılaştırma yapan deneyimli analitik toksikoloğun elinde olacağını da belirtmek isteriz.

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