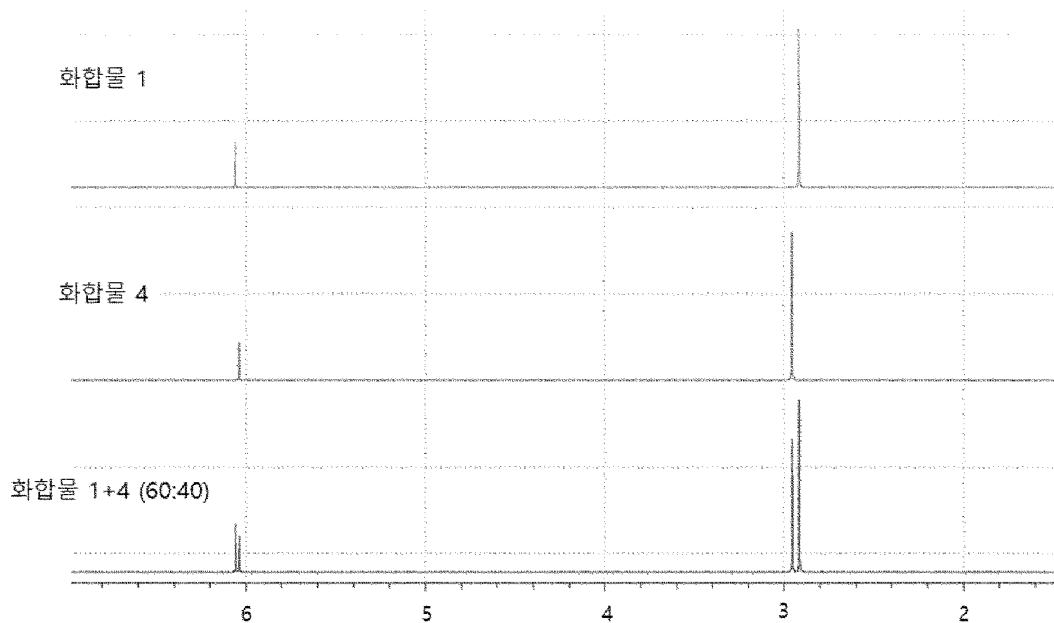


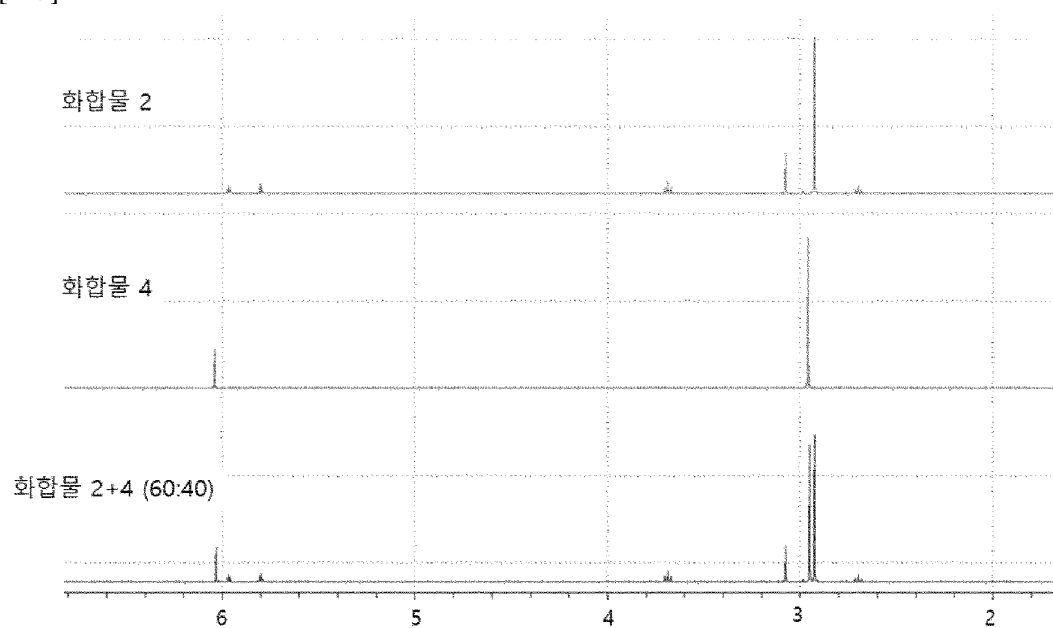
[도1]

(a)	상부전극	(b)	상부전극
	$Zr_xHf_yO_z$		$Zr_xHf_yO_z$
	Al_xO_y		Al_xO_y
	$Zr_xHf_yO_z$		ZrO_x
	하부전극		HfO_x
(c)	상부전극	(d)	상부전극
	$Zr_xHf_yO_z$		HfO_x
	Al_xO_y		ZrO_x
	HfO_x		Al_xO_y
	ZrO_x		$Zr_xHf_yO_z$
	하부전극		하부전극
(e)	상부전극	(f)	상부전극
	ZrO_x		$Zr_xHf_yO_z$
	HfO_x		Y_xO_y
	Al_xO_y		$Zr_xHf_yO_z$
	$Zr_xHf_yO_z$		하부전극
	하부전극		

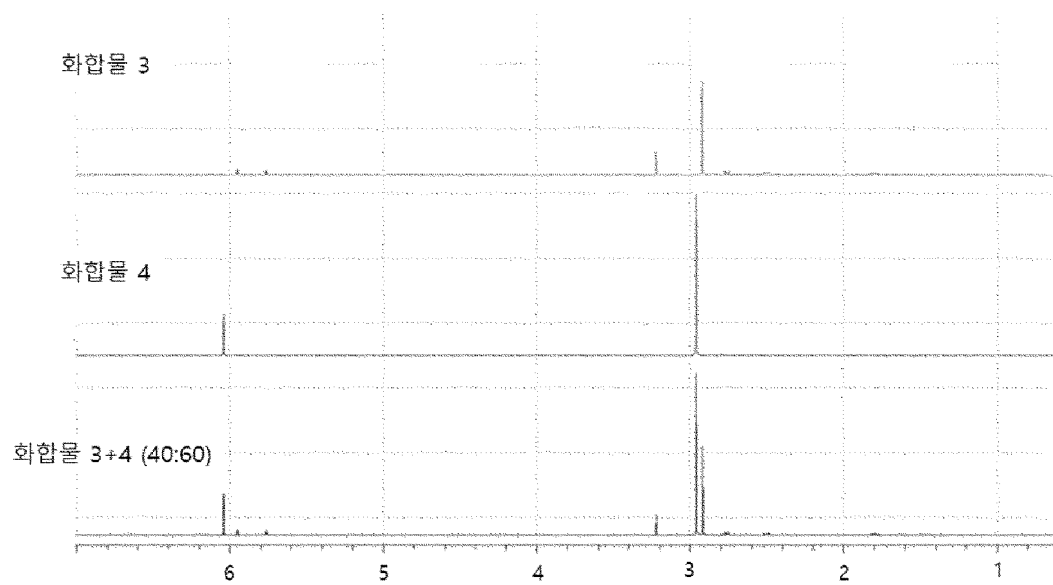
[도2]



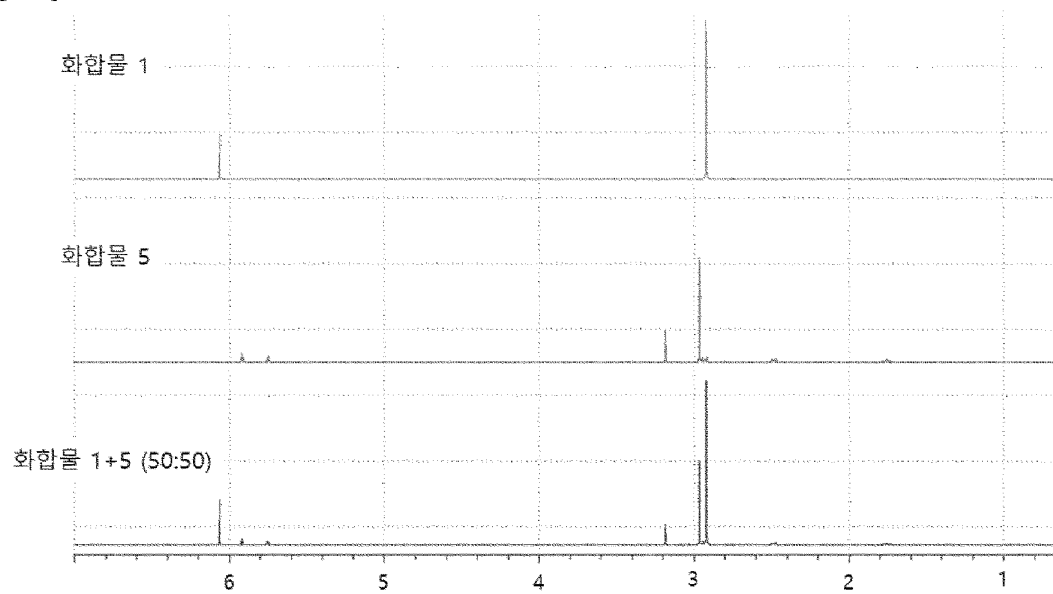
[도3]



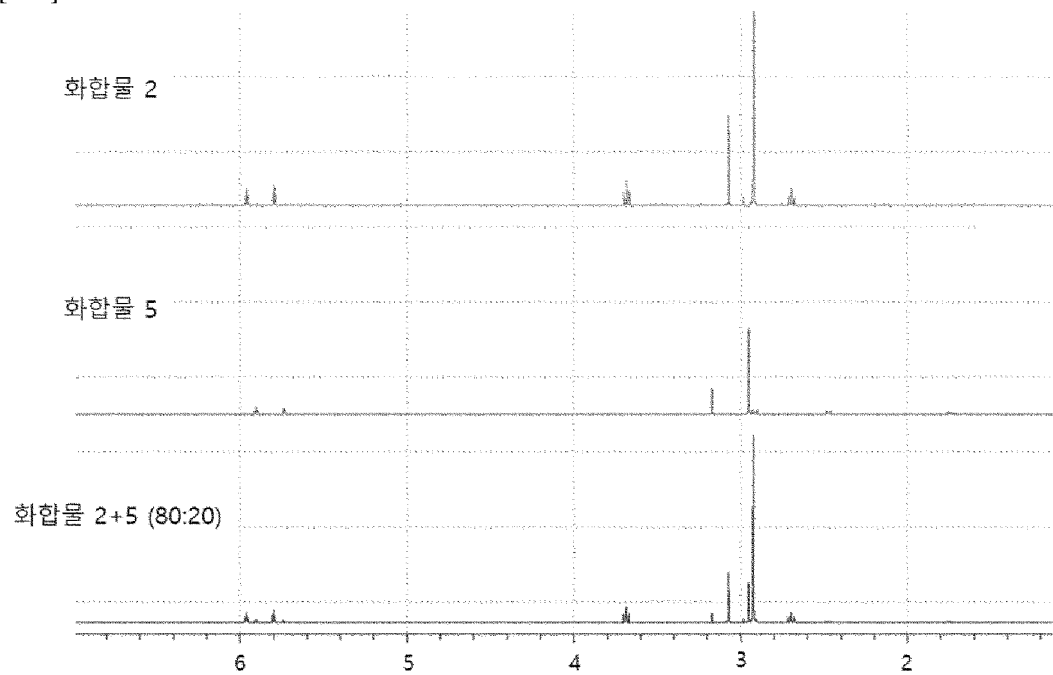
[도4]



[도5]

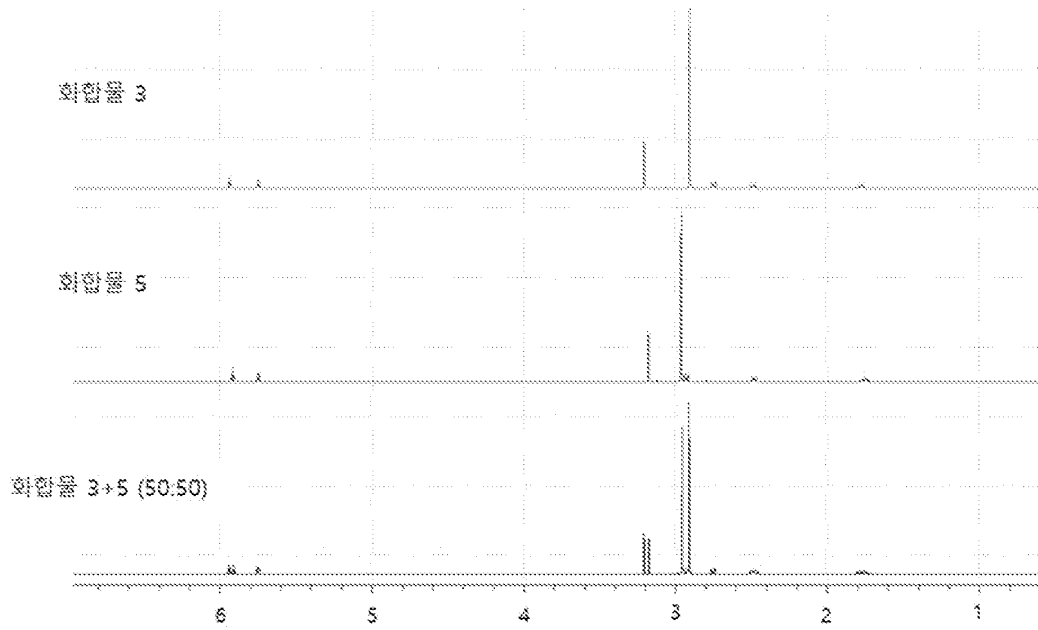


[도6]

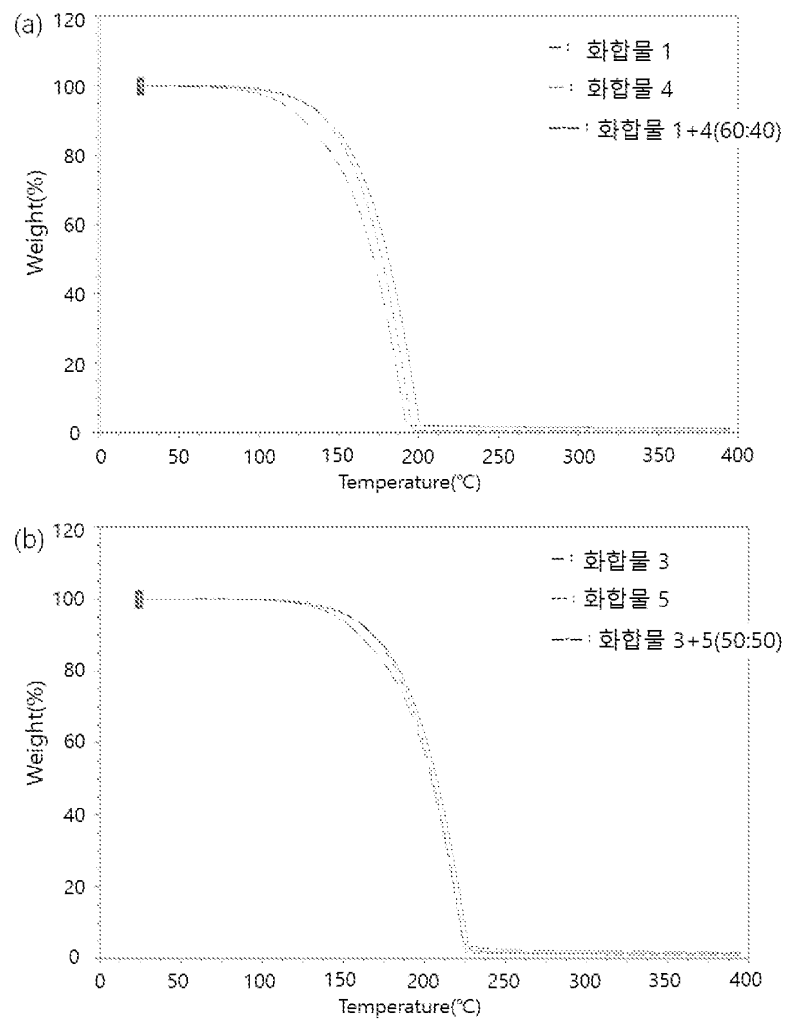


[도7] WO 2020/122506

PCT/KR2019/017151



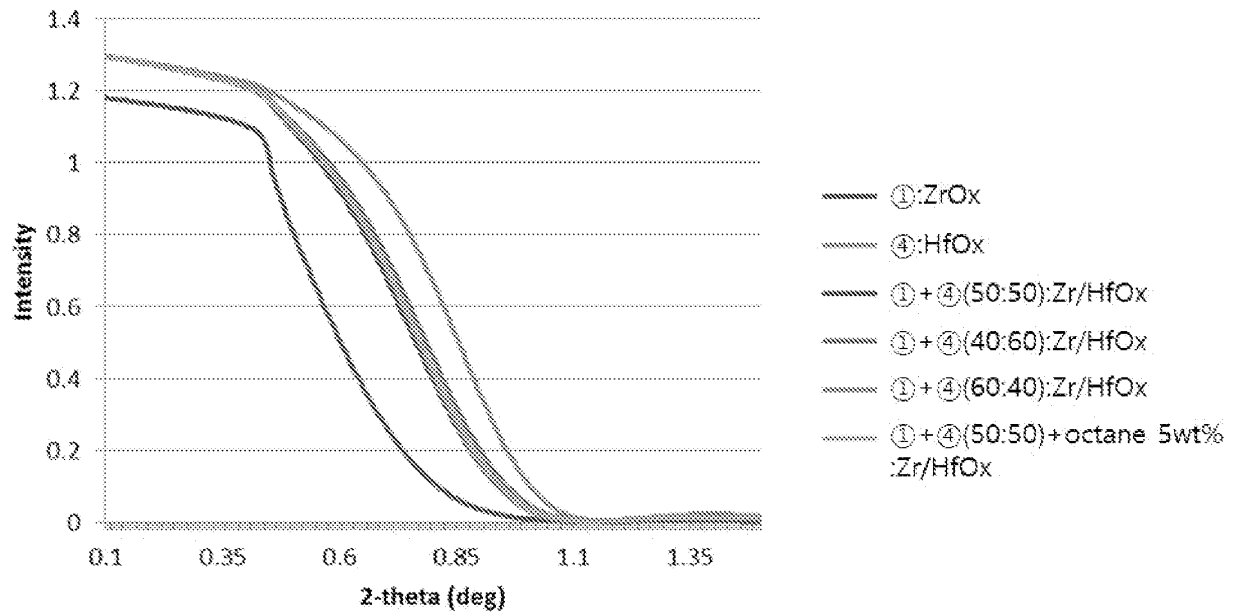
[도8]



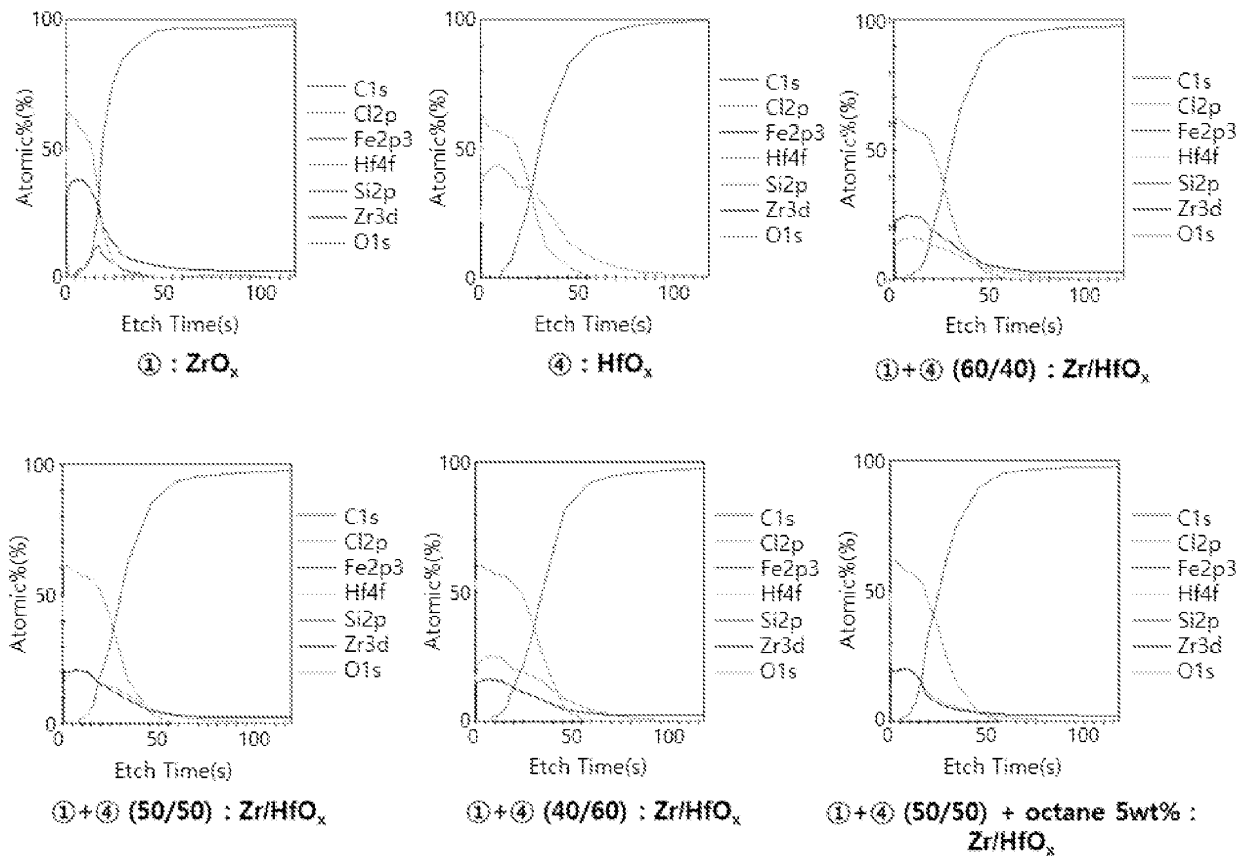
정정용지 (규칙 제91조) ISA/KR

[도9] WO 2020/122506

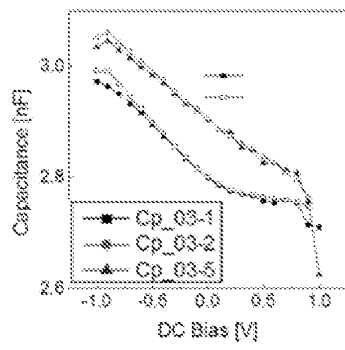
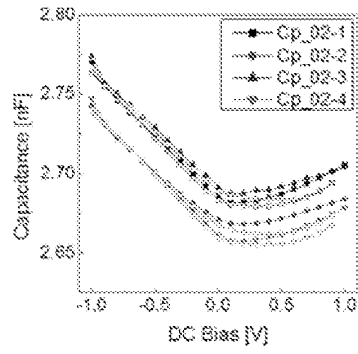
PCT/KR2019/017151



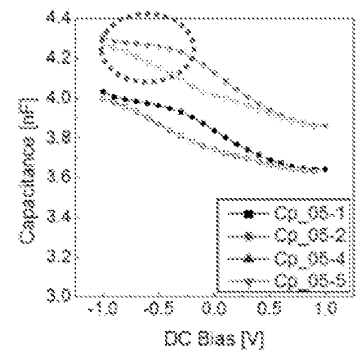
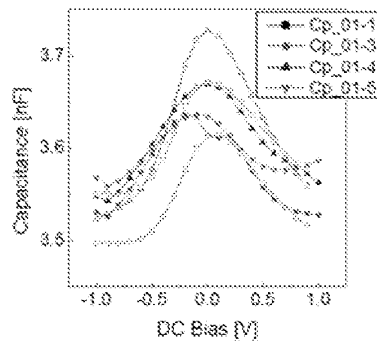
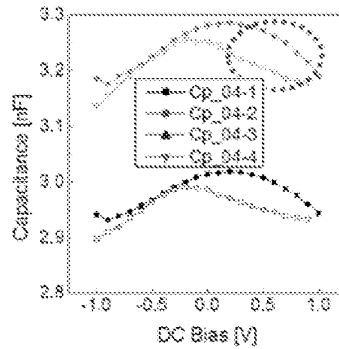
[도10]



[도11] WO 2020/122506

① : ZrO_x ④ : HfO_x

PCT/KR2019/017151

①+④ (60/40) : Zr/HfO_x ①+④ (50/50) : Zr/HfO_x ①+④ (40/60) : Zr/HfO_x 