

1/39

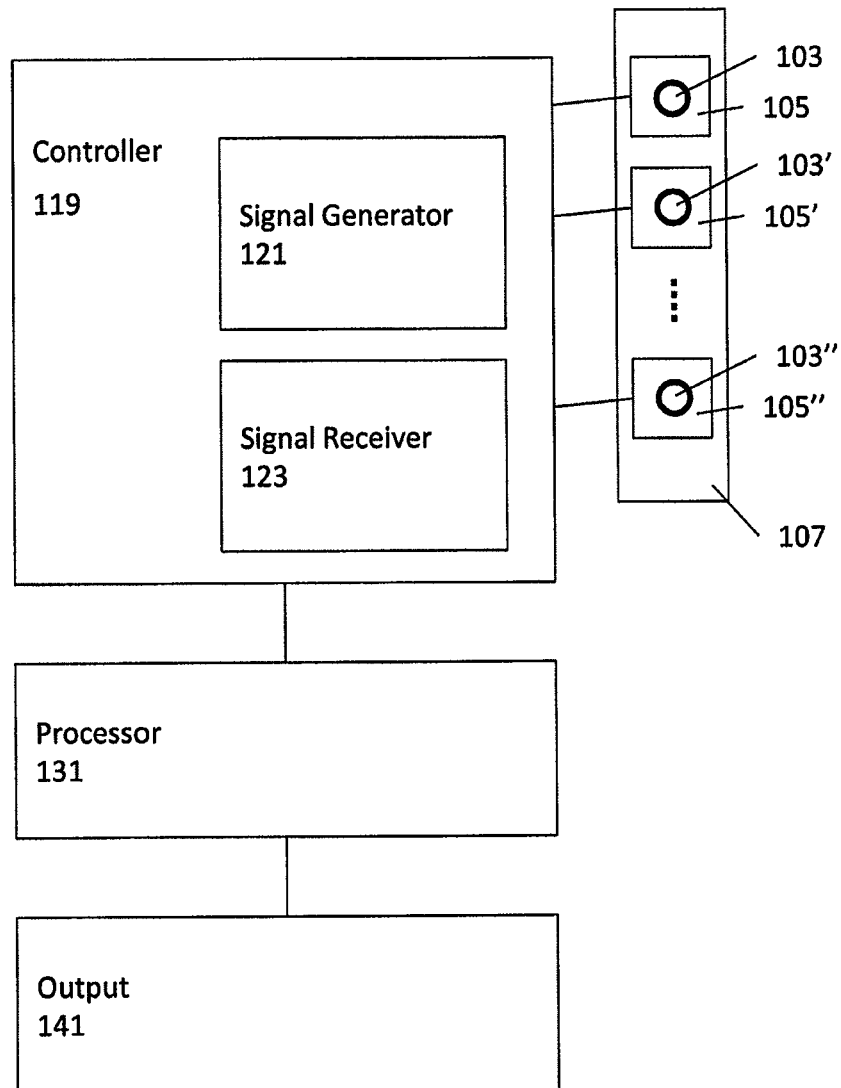


FIG. 1

2/39

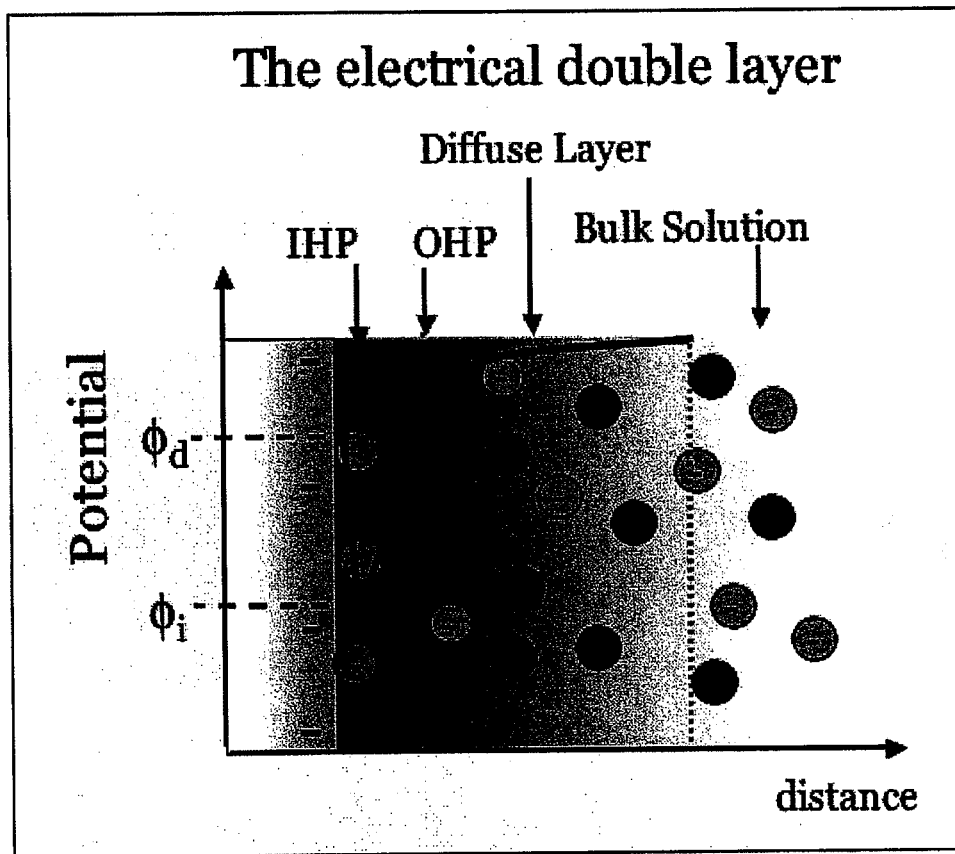


FIG. 2

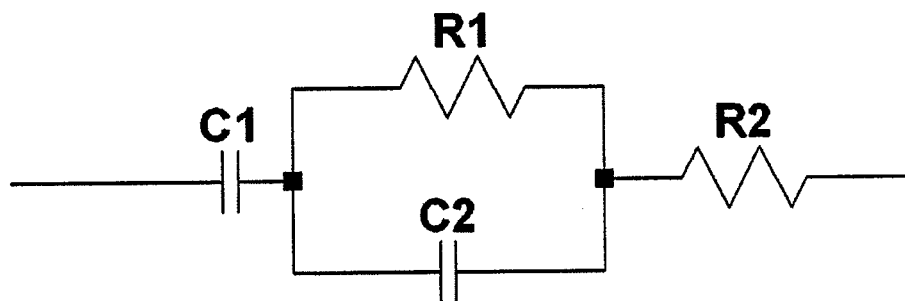
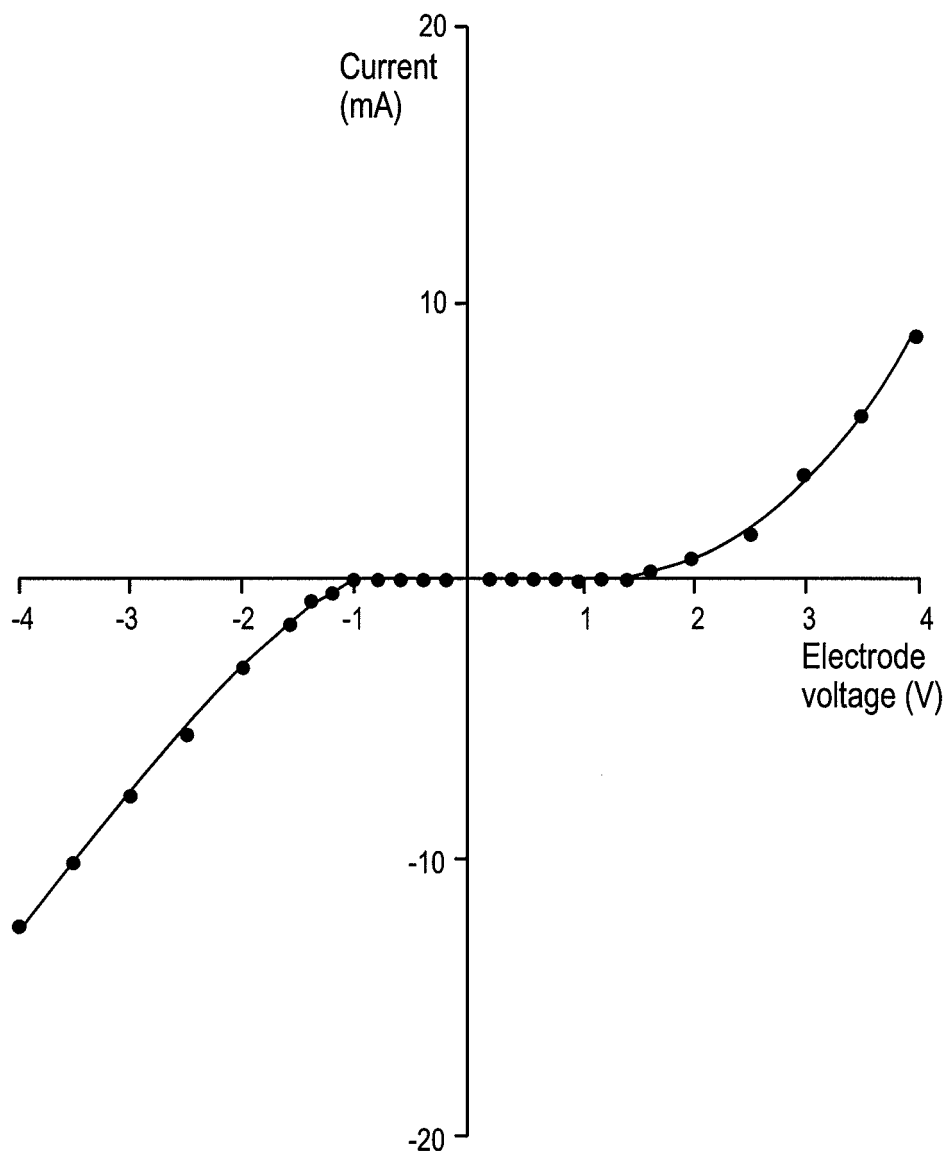


FIG. 3

**FIG. 4**

4/39

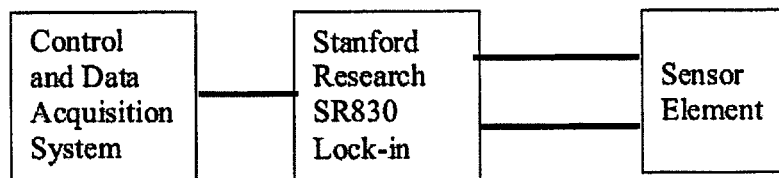


FIG. 5

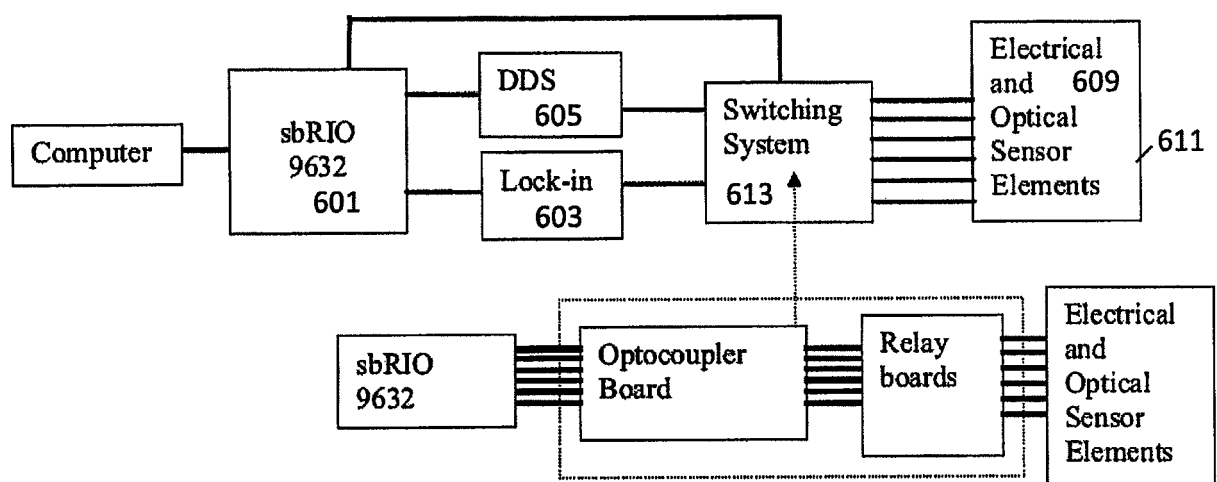


FIG. 6

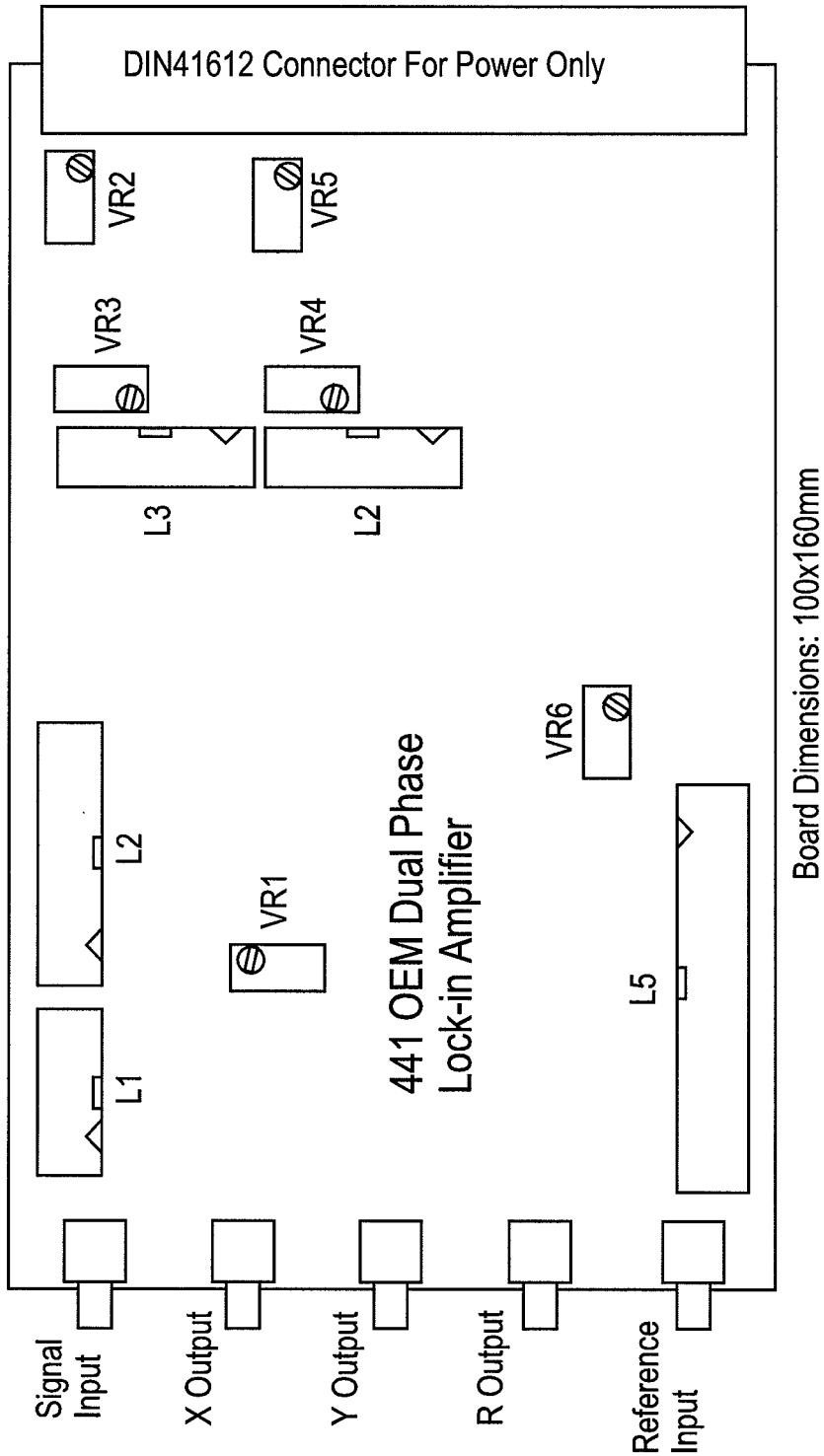
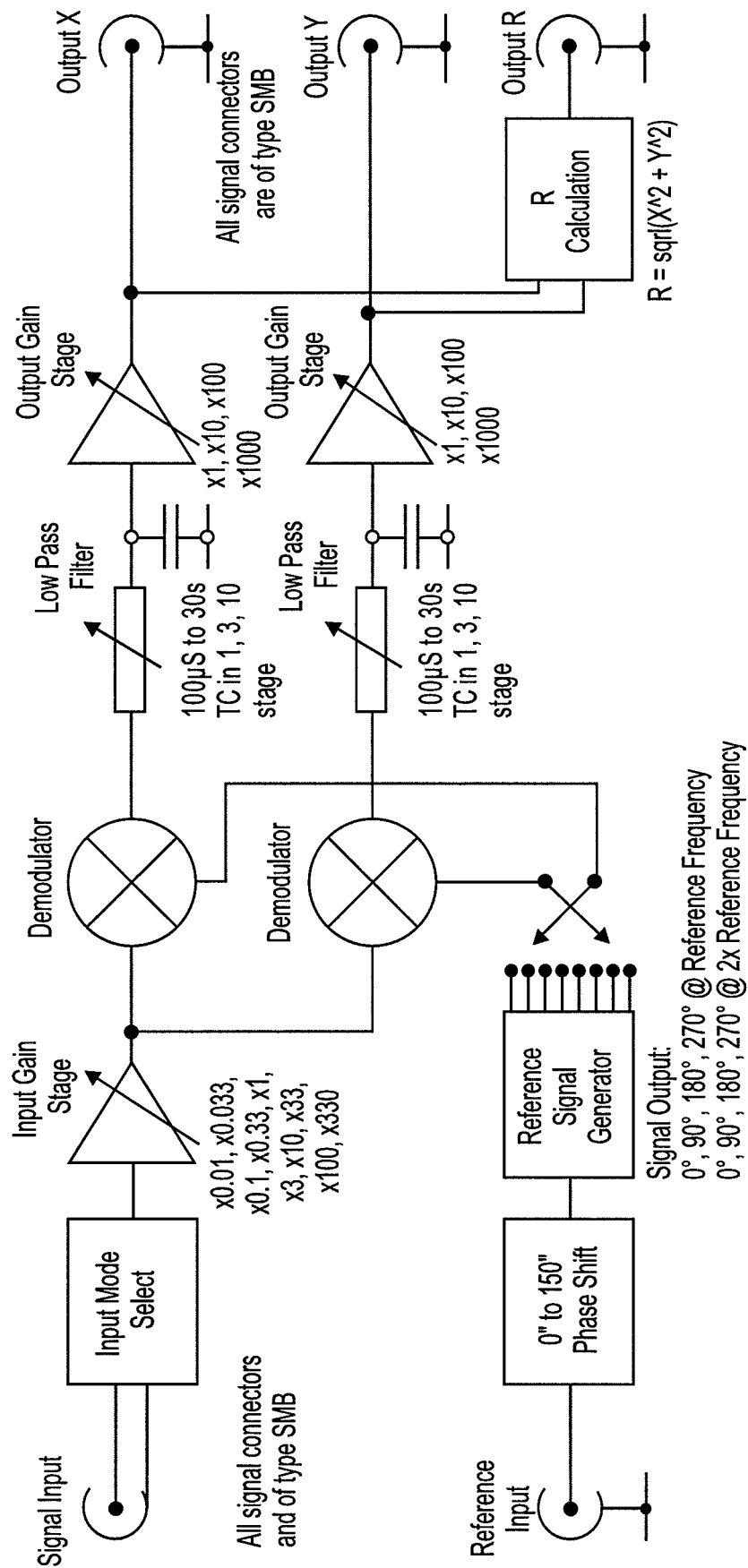


FIG. 7A

**FIG. 7B**

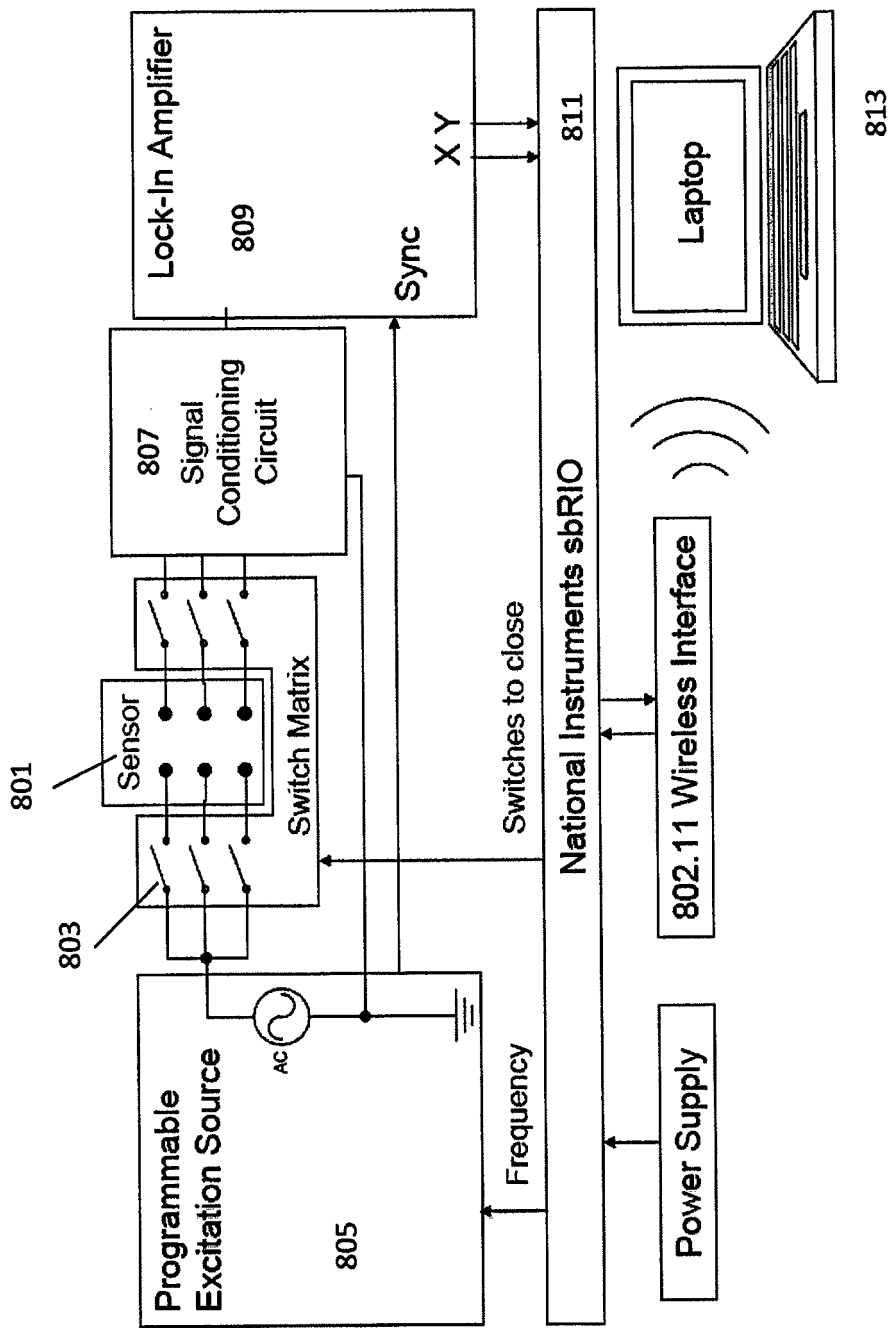


FIG. 8



FIG. 9

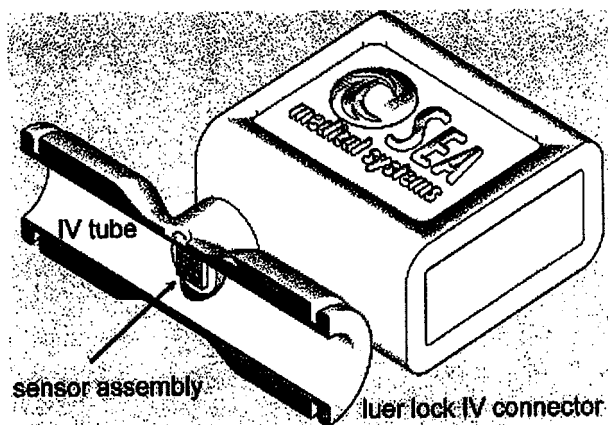


FIG. 10

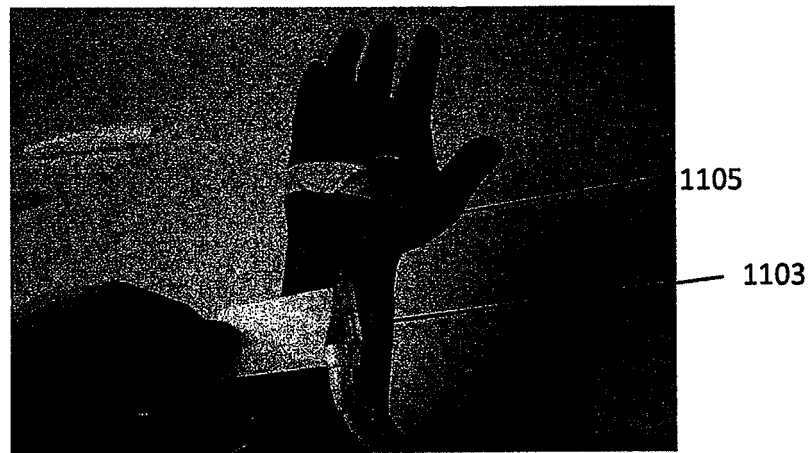


FIG. 11

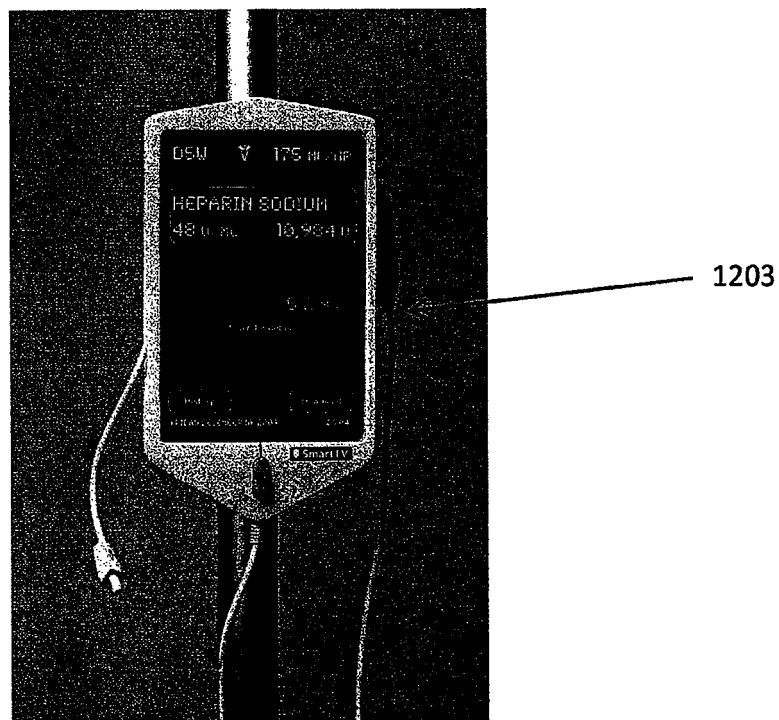


FIG. 12

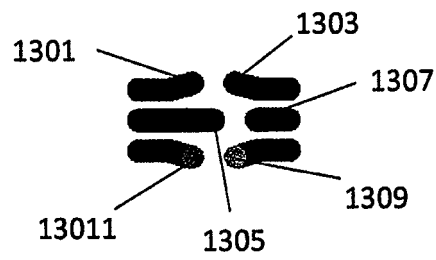


FIG. 13A

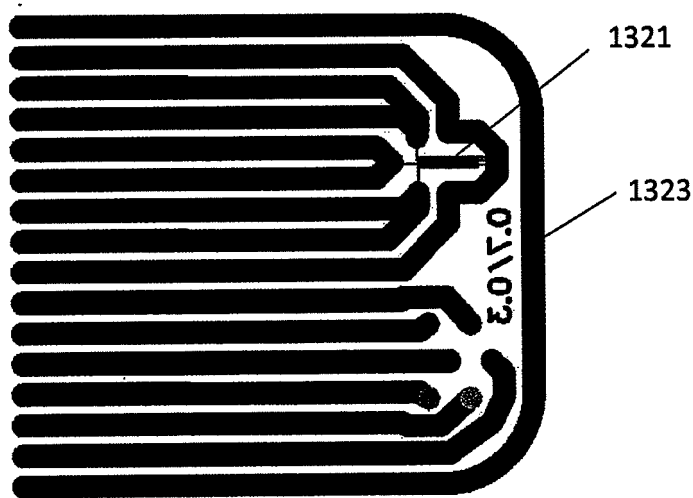


FIG. 13B

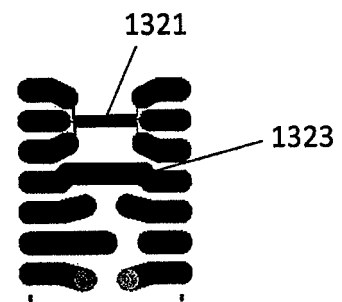


FIG. 13C

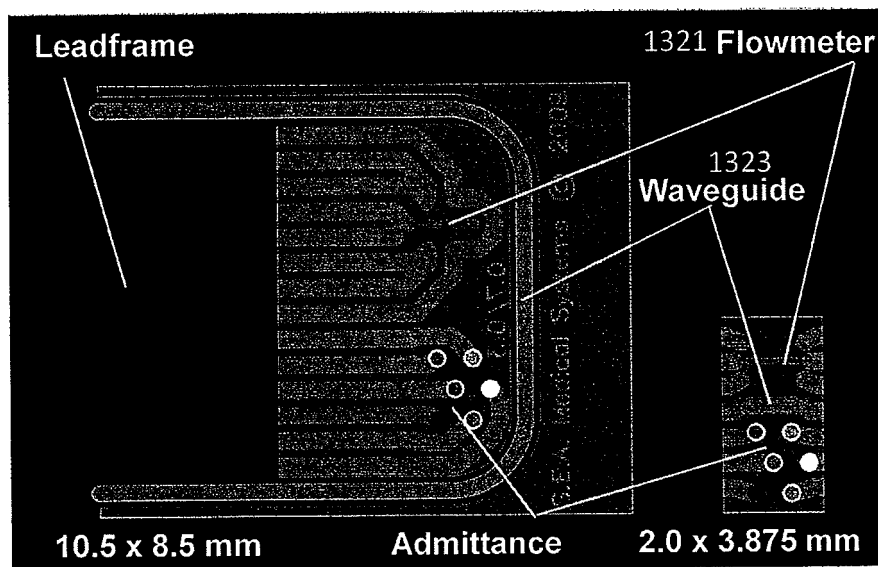


FIG. 13D

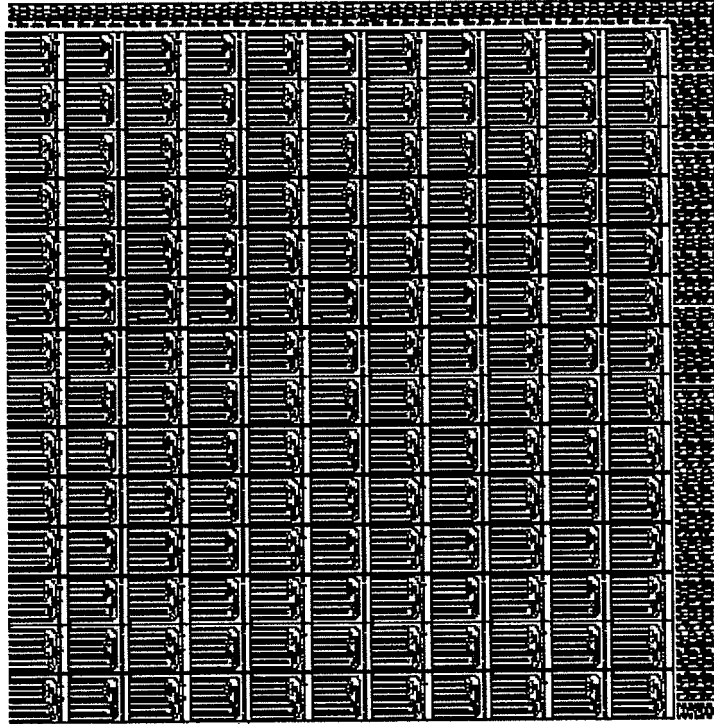


FIG. 14

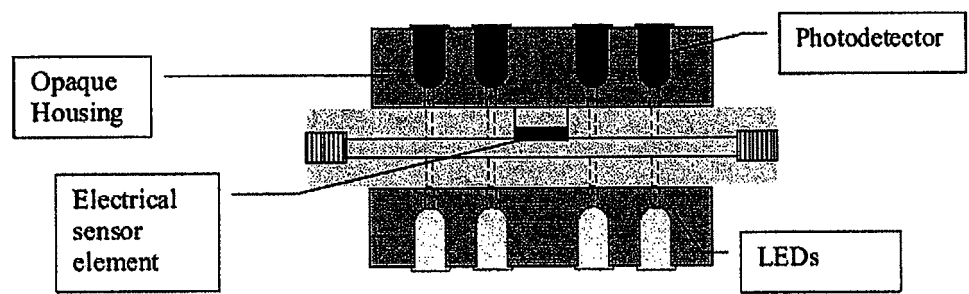


FIG. 15A

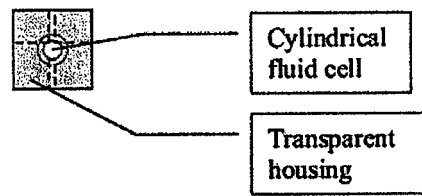


FIG. 15B

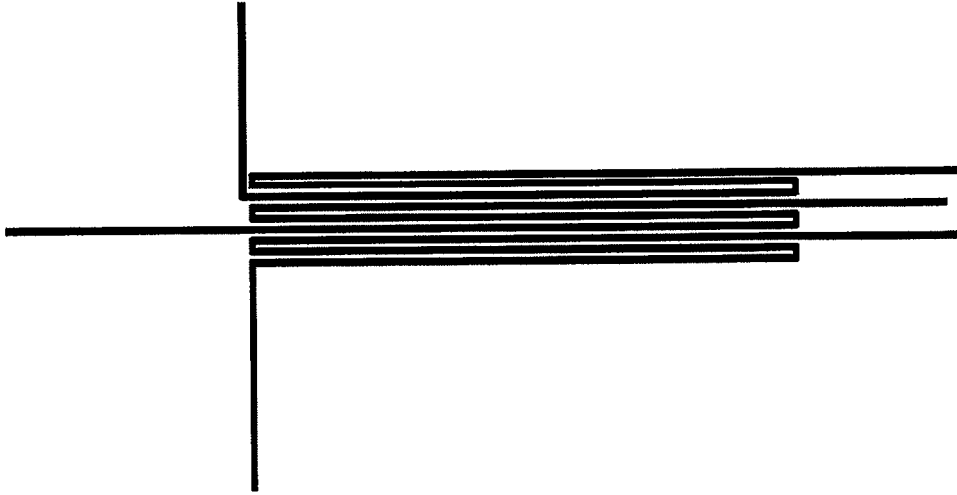


FIG. 16

	10		20		30		40		50		60		70		80		90		100	
	1703	1705																		
Au-Au																				
Au-Pd																				
Au-Ti																				
Pd-Pd																				
Pd-Ti																				
Ti-Ti																				

FIG. 17A

	10	20	30	40	50	60	70	80	90	100
Au-Au	1703	1705								
Au-Pd										
Au-Ti										
Pd-Pd										
Pd-Ti										
Ti-Ti										
IR1										
IR2										
Vis										
UV										

FIG. 17B

Drug	Concentration	Drug	Concentration
Heparin sodium	100 units/mL	Carboplatin	1 mg/mL
Insulin (regular)	1 unit/mL	Cyclophosphamide	2 mg/mL
Midazolam	0.5 mg/mL	Cytarabine	2 mg/mL
Dopamine	2 mg/mL	Etoposide	2 mg/mL
Dobutamine	500 mcg/mL	Fluorouracil	10 mg/mL
Furosemide	4 mg/mL	Nitroprusside sodium	0.2 mg/mL
Pancuronium	1 mg/mL	Succinylcholine	20 mg/mL
Vecuronium	1 mg/mL	Lorazepam	0.5 mg/mL
Atracurium	0.5 mg/mL	Phenylephrine	0.4 mg/mL
Morphine	0.5 mg/mL	Potassium chloride	40 mEq/L
Hydromorphone	0.5 mg/mL	Magnesium sulfate	200 mg/mL
Fentanyl Citrate	0.02 mg/mL	Sodium chloride	3%
Propofol	5 mg/mL	Nicardipine	0.1 mg/mL
Epinephrine	0.008 mg/mL	Vancomycin	5 mg/mL
Norepinephrine	0.008 mg/mL	Vasopressin	0.5 u/mL

FIG. 18A

Drug	Concentration	Diluent
Atacurium	0.5mg/mL	NS
Atacurium	0.5mg/mL	D5W
Bupivacaine	0.10%	NS
Bupivacaine	1.00%	NS
Carboplatin	1 mg/mL	NS
Cyclophosphamide	2 mg/mL	NS
Cytarabine	2 mg/mL	NS
Dobutamine	0.5mg/ml	D5W
Dobutamine	500 mcg/mL	NS
Dopamine	2 mg/mL	NS
Epinephrine	0.008 mg/mL	NS
Etoposide	2 mg/mL	NS
Fentanyl + Bupivacaine	0.002mg/ml+ 0.1%	NS
Fentanyl Citrate	0.002mg/ml	NS
Fentanyl Citrate	0.02 mg/mL	NS
Fentanyl Citrate	0.1mg/ml	NS
Fentanyl Citrate	1mg/ml	SW
Fluorouracil	10 mg/mL	NS
Furosemide	4 mg/mL	NS
Heparin + Midazolam	100U/ml+0.5mg/ml	NS
Heparin + Vancomycin	1000U/ml+5mg/ml	NS
Heparin sodium	0.3U/ml	NS
Heparin sodium	0.3U/ml	D5W
Heparin sodium	1U/ml	NS
Heparin sodium	2U/ml	NS
Heparin sodium	2U/ml	D5W
Heparin sodium	10U/ml	NS
Heparin sodium	10U/ml	D5W
Heparin sodium	30U/ml	NS
Heparin sodium	100U/mL	NS
Heparin sodium	100U/ml	D5W
Heparin sodium	300U/ml	NS
Heparin sodium	1000U/ml	NS
Heparin sodium	1000U/ml	D5W
Heparin sodium	2500U/ml	NS
Heparin sodium	2500U/ml	SW
Hydromorphone	0.5 mg/mL	NS
Insulin	0.01U/ml	NS

Insulin	0.05U/ml	NS
Insulin	0.1U/ml	NS
Insulin	0.3U/ml	NS
Insulin	1U/ml	NS
Insulin	3U/ml	NS
Insulin	10U/ml	NS
Insulin	30U/ml	NS
Insulin	100U/ml	NS
Insulin	500U/ml	NS
Lorazepam	0.5 mg/mL	NS
Magnesium sulfate	200 mg/mL	NS
Midazolam	0.5 mg/mL	NS
Morphine	0.5 mg/mL	NS
Nicardipine	0.1 mg/mL	NS
Nicardipine	0.1mg/ml	D5W
Nicardipine	0.5mg/ml	NS
Nitroprusside sodium	0.2 mg/mL	NS
Norepinephrine	0.008 mg/mL	NS
Norepinephrine + Dopamine	0.008mg/ml+2mg/ml	NS
Pancuronium	1 mg/mL	NS
Phenylephrine	0.1 mg/mL	SW
Phenylephrine	0.4 mg/mL	NS
Potassium chloride	0.001 meq/ml	D5W
Potassium chloride	0.003 meq/ml	D5W
Potassium chloride	0.01 meq/ml	D5W
Potassium chloride	0.04 mEq/ml	NS
Potassium chloride	0.04 meq/ml	D5W
Potassium chloride	0.08 meq/ml	D5W
Potassium chloride	0.1 meq/ml	D5W
Potassium chloride	0.4 meq/ml	D5W
Potassium chloride	0.8 meq/ml	D5W
Propofol	5 mg/mL	NS
Propofol	5mg/ml	D5W
Sodium chloride	3%	SW
Succinylcholine	20 mg/mL	NS
Vancomycin	5 mg/mL	NS
Vasopressin	0.5 U/mL	NS
Vasopressin	0.5U/ml	D5W
Vecuronium	1 mg/mL	NS

FIG. 18B

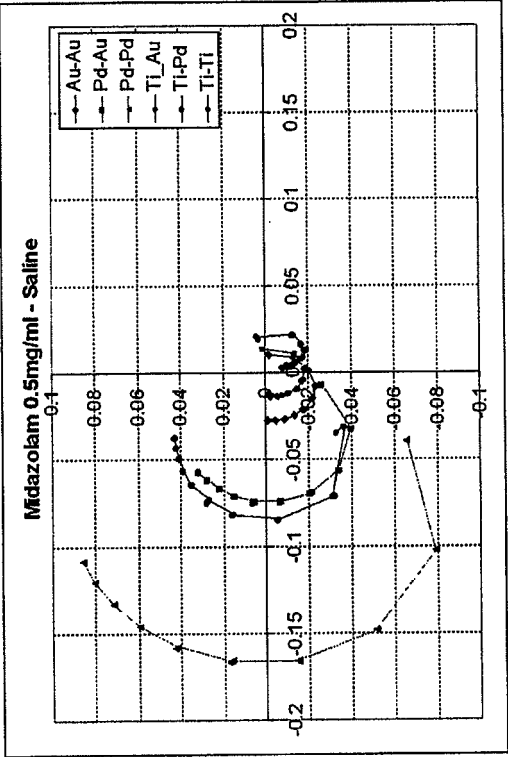


FIG. 19A

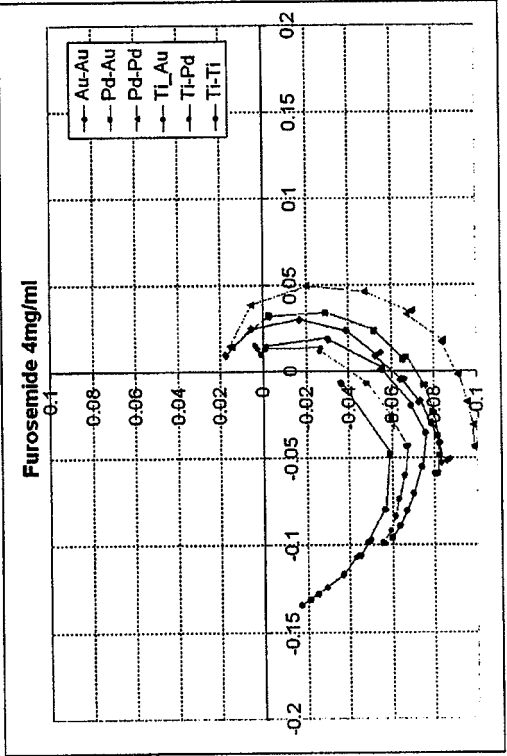


FIG. 19B

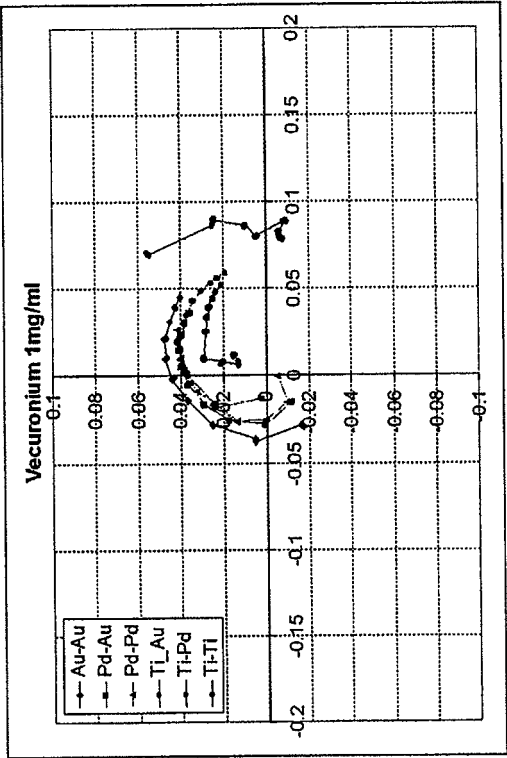


FIG. 19C

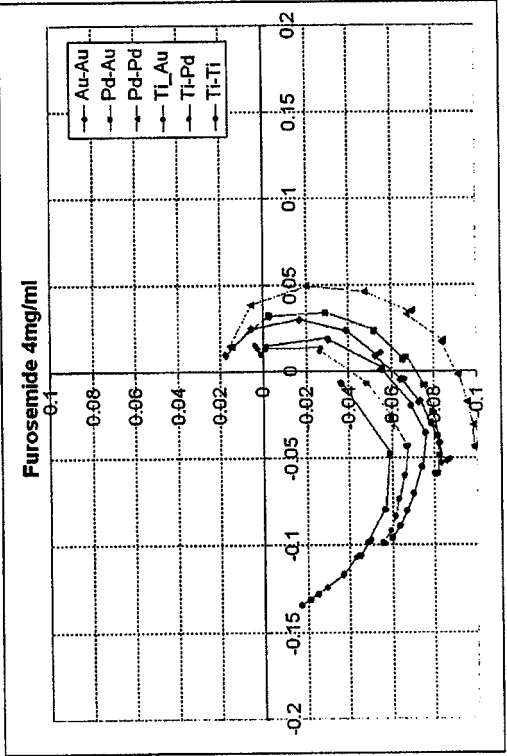


FIG. 19D

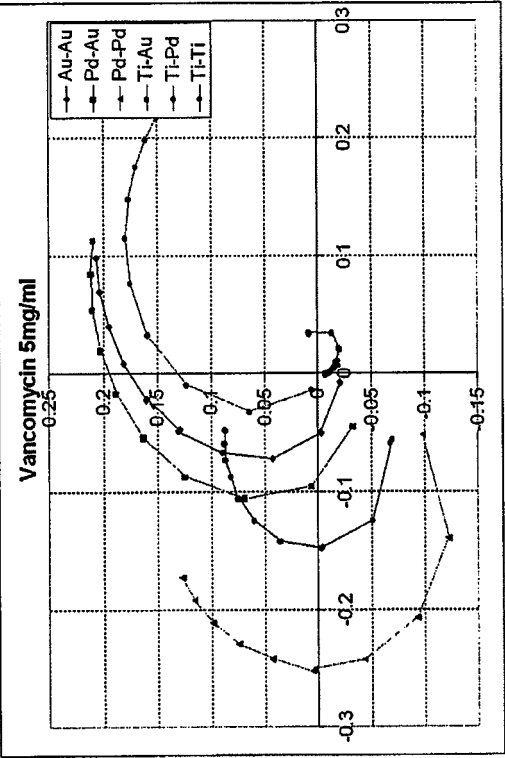


FIG. 19F

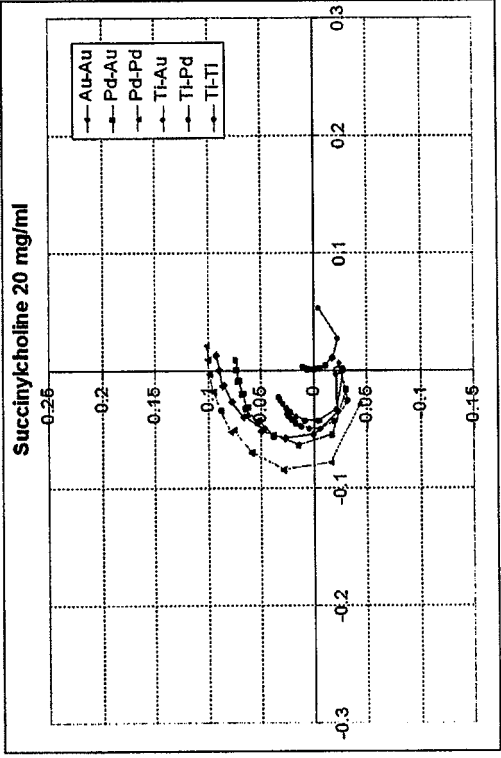


FIG. 19H

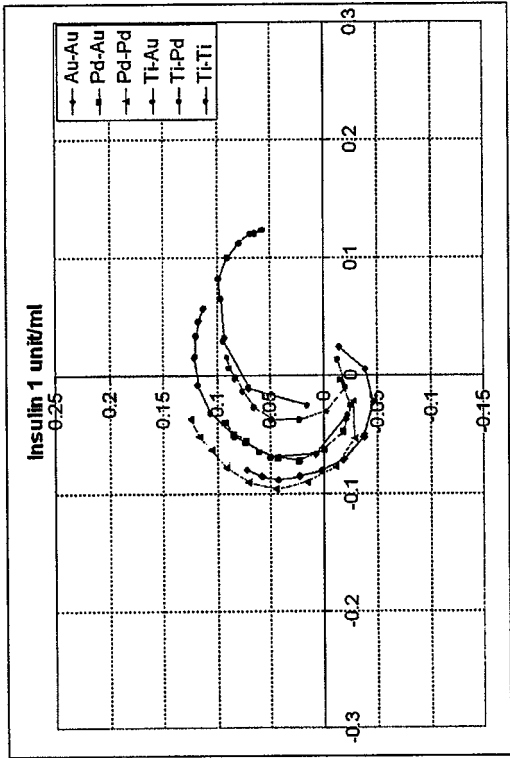


FIG. 19E

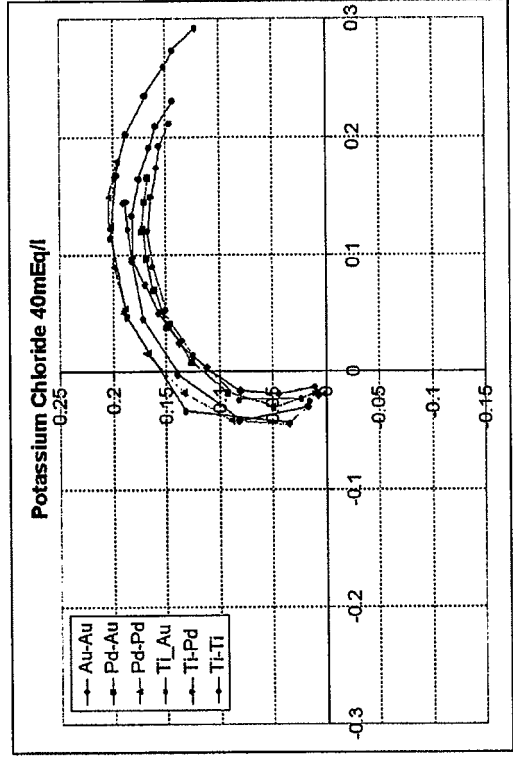


FIG. 19G

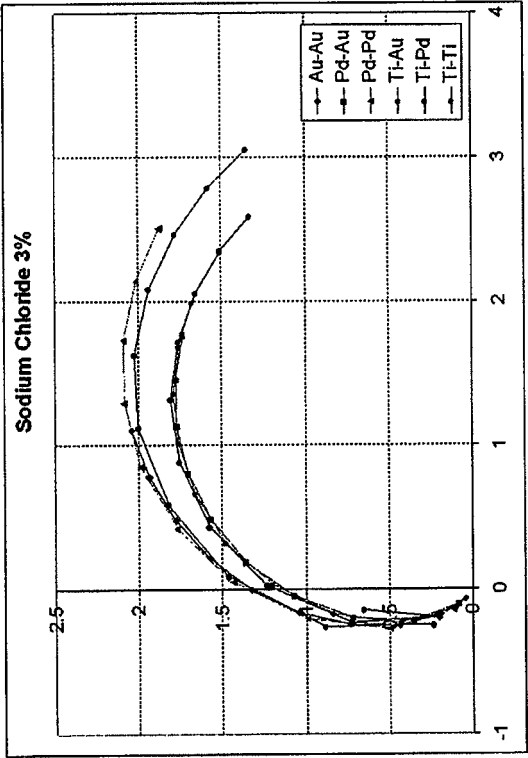


FIG. 19J

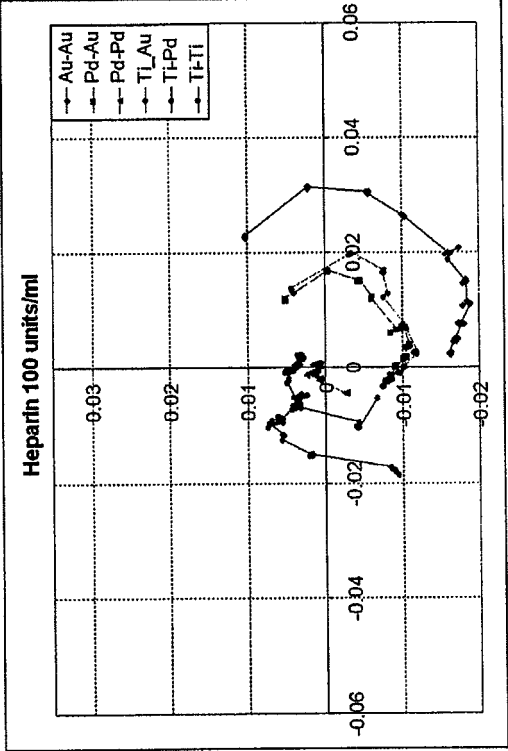


FIG. 19L

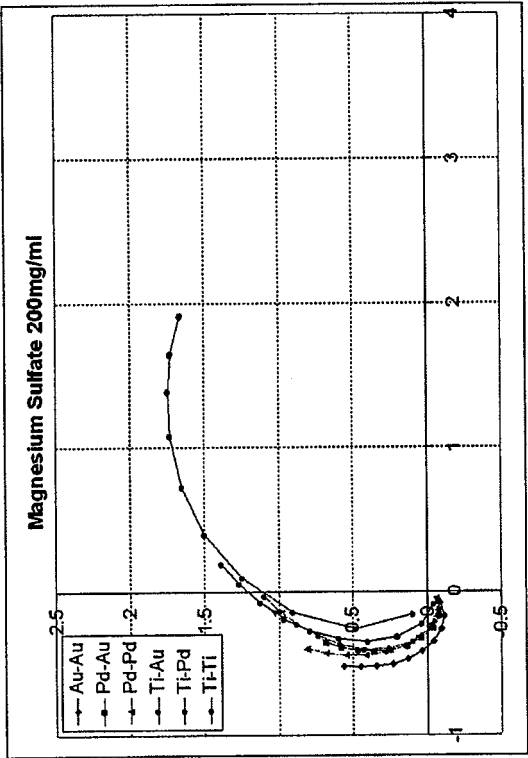


FIG. 19I

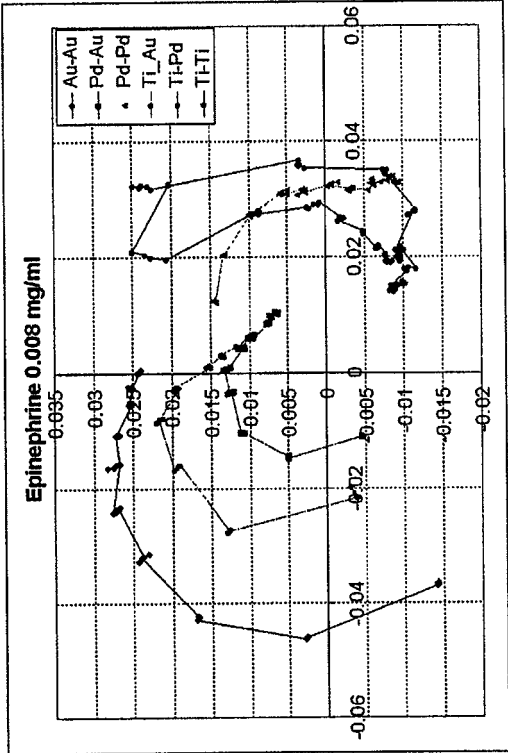


FIG. 19K

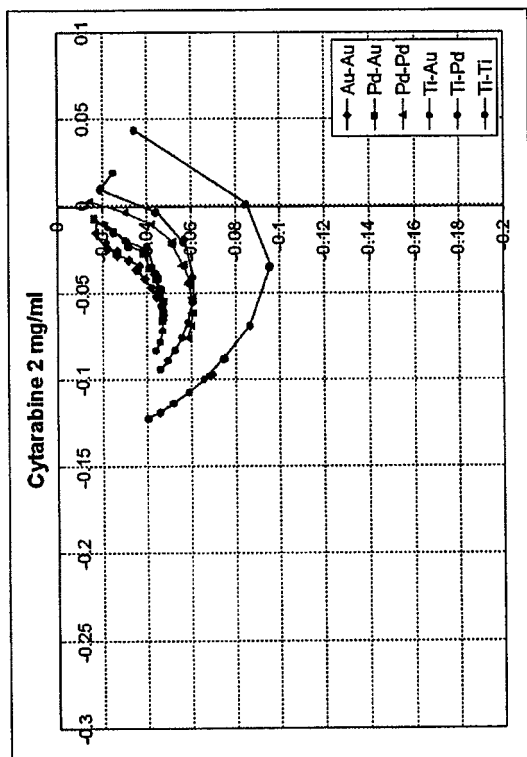


FIG. 19N

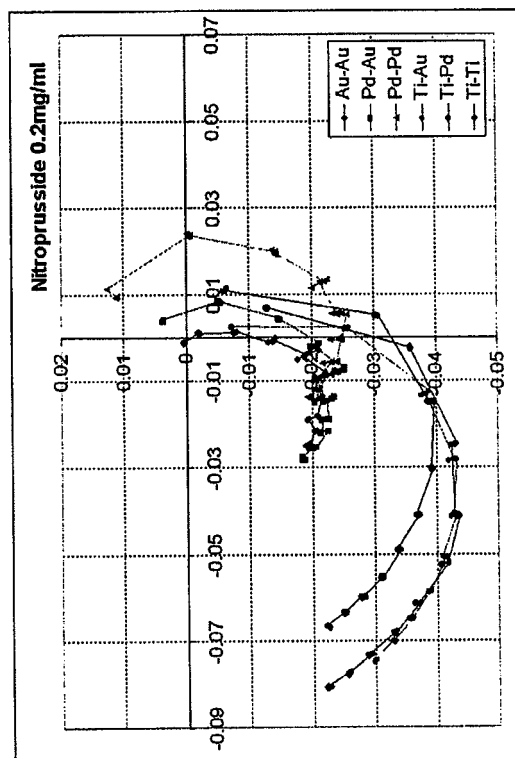


FIG. 19P

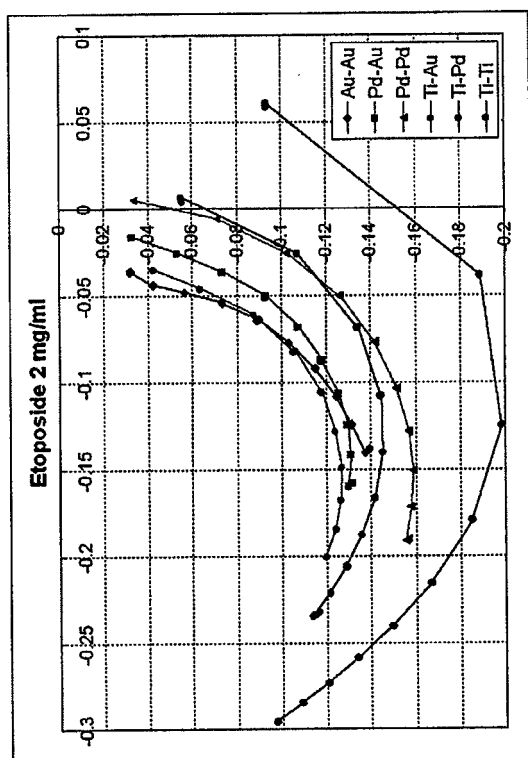


FIG. 19M

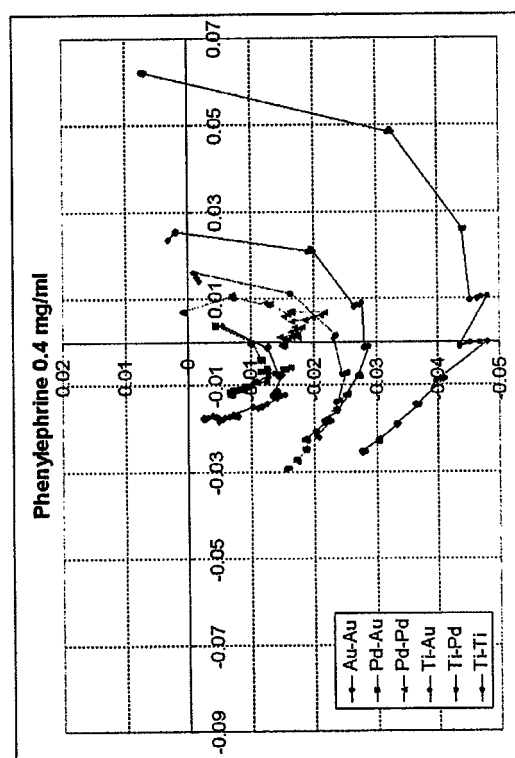


FIG. 19O

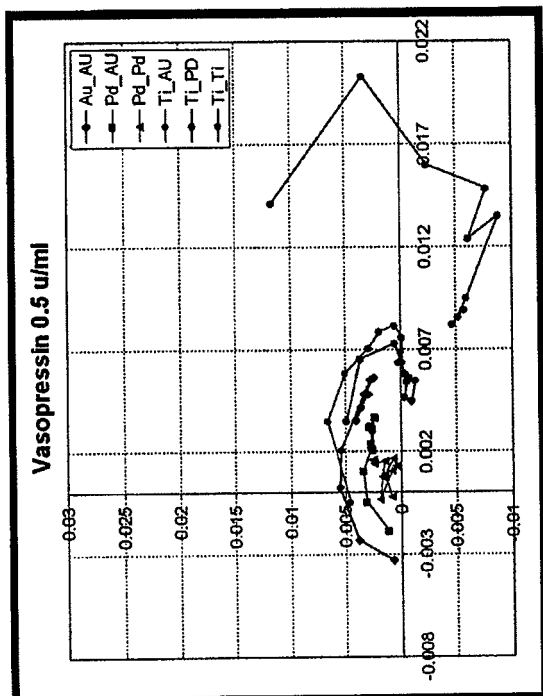


FIG. 19R

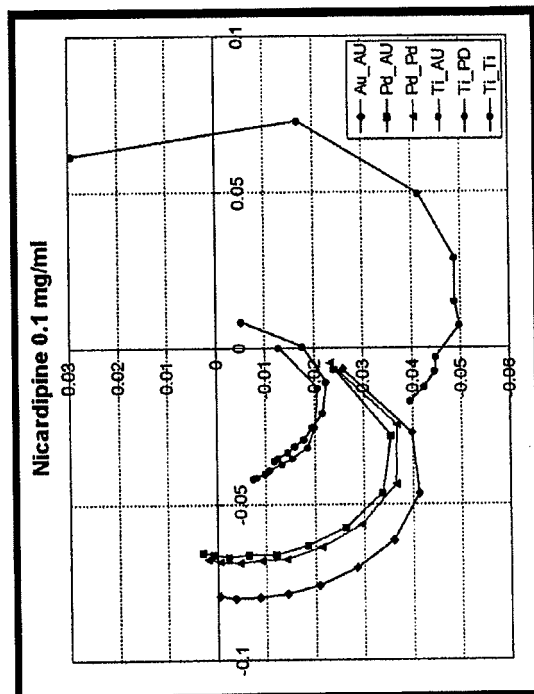


FIG. 19T

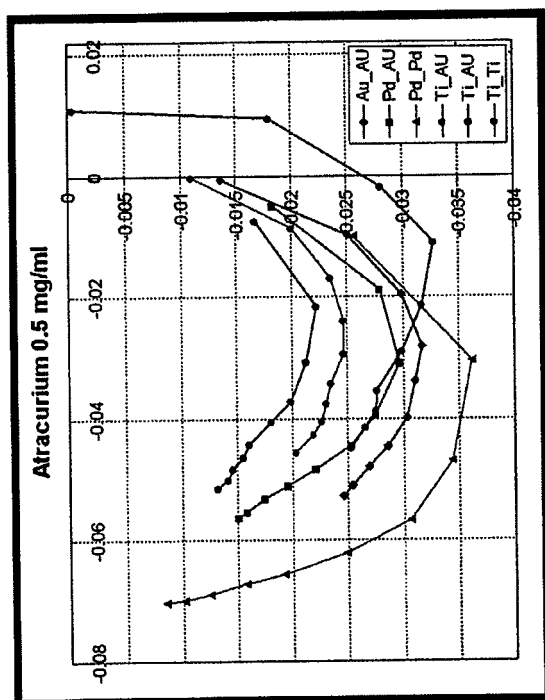


FIG. 19Q

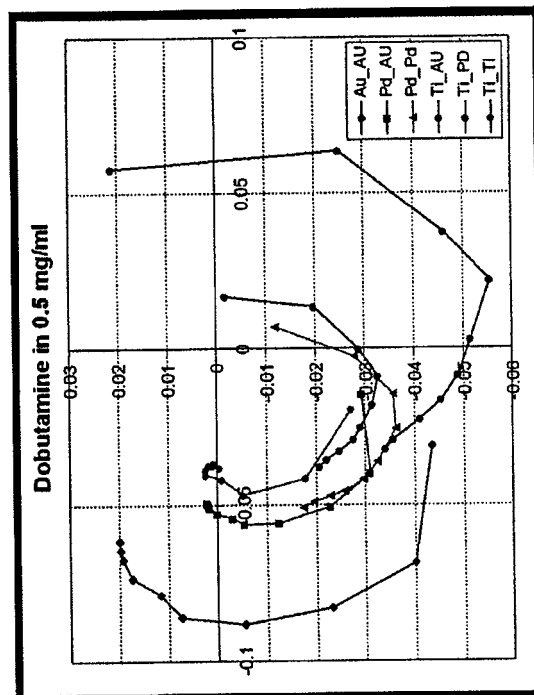
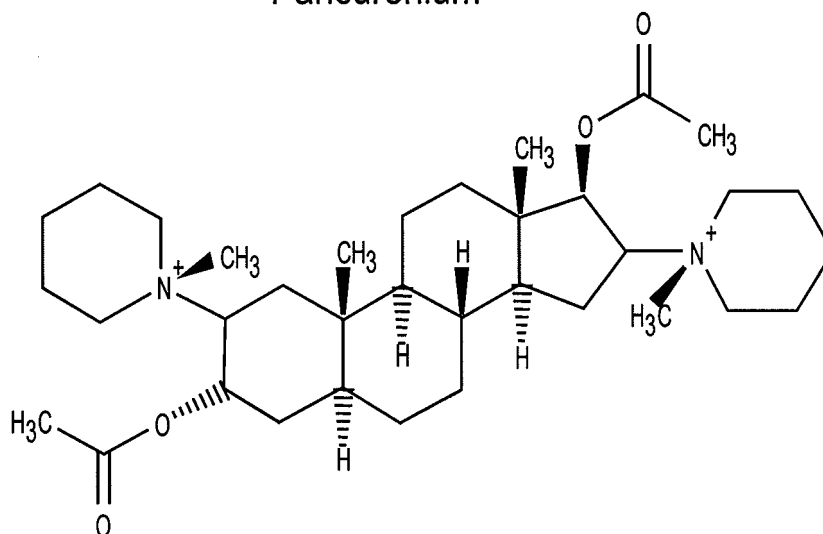


FIG. 19S

Pancuronium



Formula: C₃₅H₆₀N₂O₄

Mol. mass: 572.861 g/mol

Vecuronium 1 mg/ml

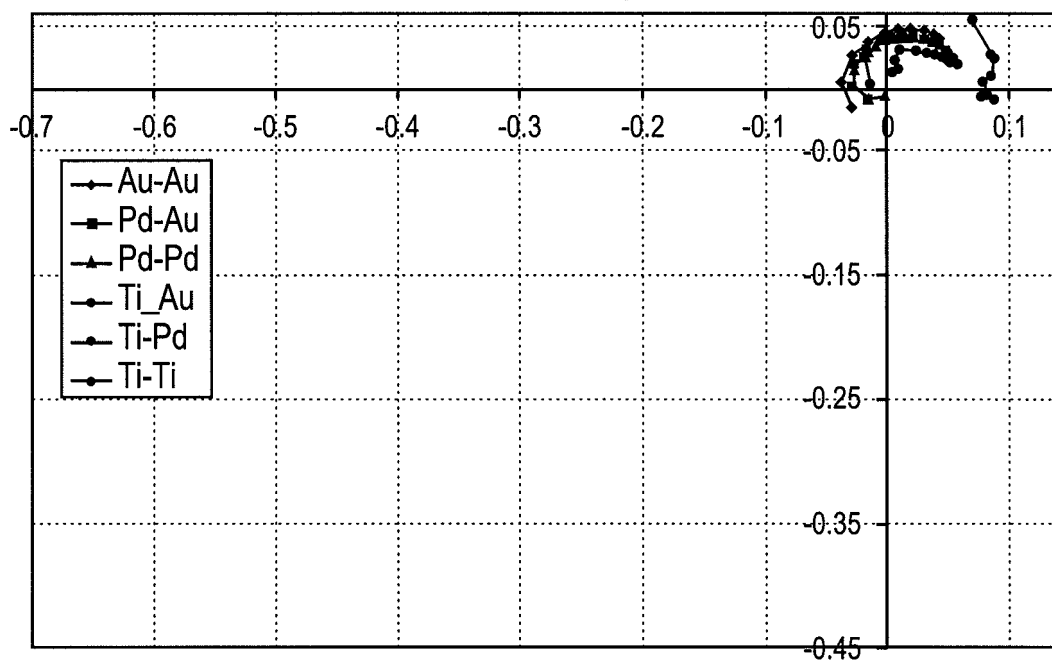
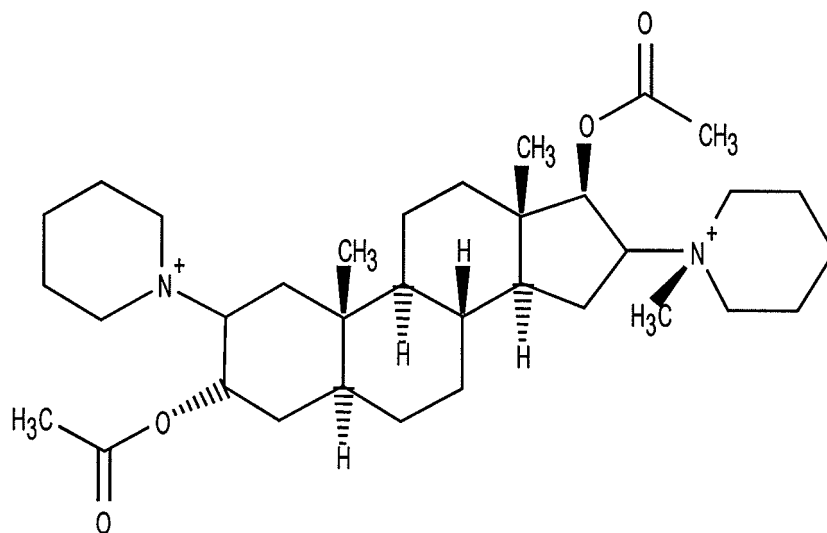


FIG. 20A

Vecuronium



Formula: $C_{34}H_{57}N_2O_4^+$

Mol. mass: 557.827 g/mol

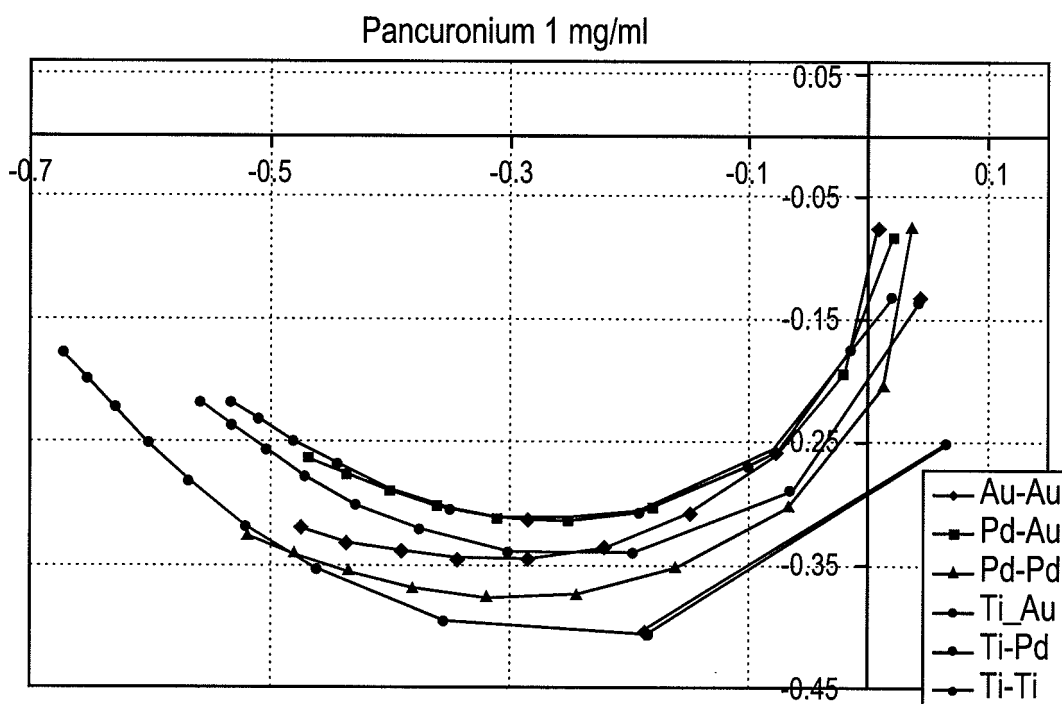
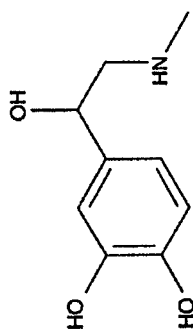


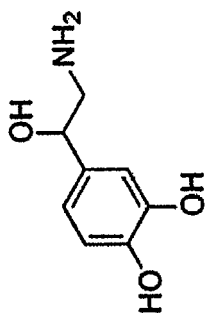
FIG. 20B

Epinephrine



Formula: $C_9H_{13}NO_3$
 Mol. mass: 183.204 g/mol

Norepinephrine



Formula: $C_8H_{11}NO_3$
 Mol. mass: 169.18 g/mol

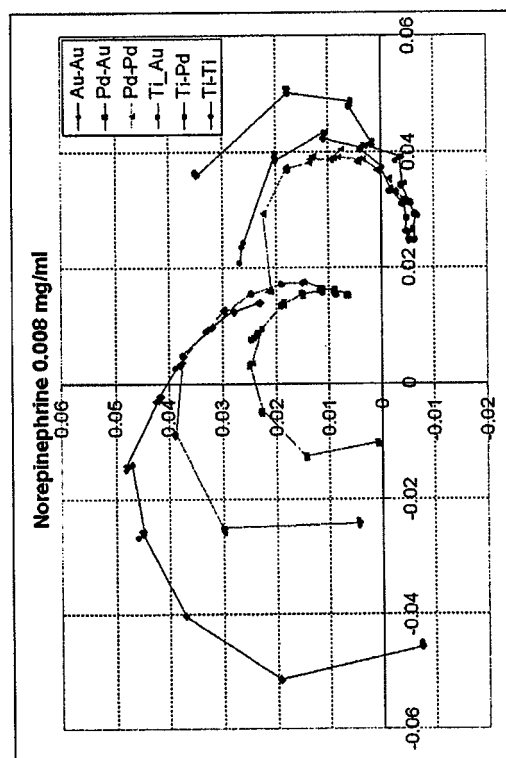


FIG. 21A

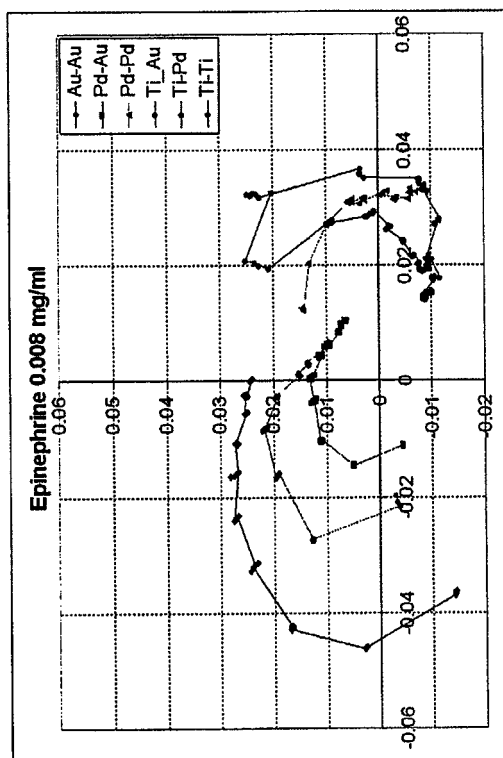
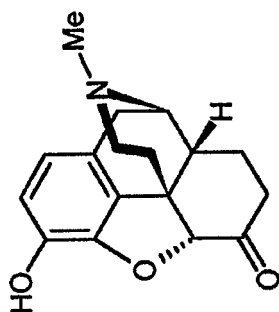


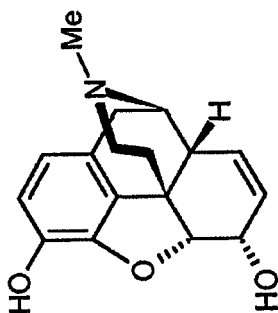
FIG. 21B

Hydromorphone



Formula: $C_{17}H_{19}NO_3$
 Mol. mass: 285.34 g/mol

Morphine



Formula: $C_{17}H_{19}NO_3$
 Mol. mass: 285.34 g/mol

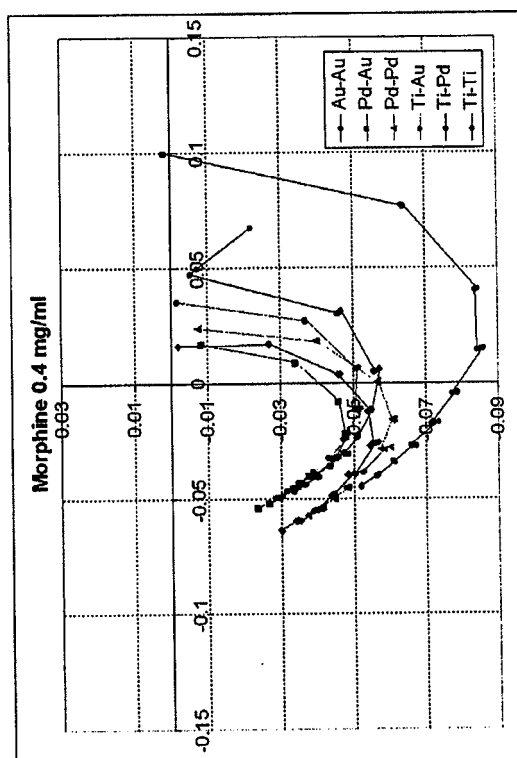


FIG. 22B

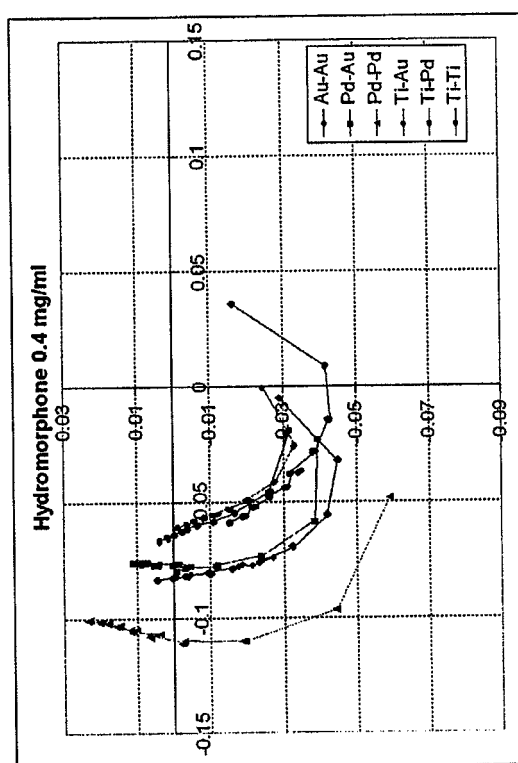


FIG. 22A

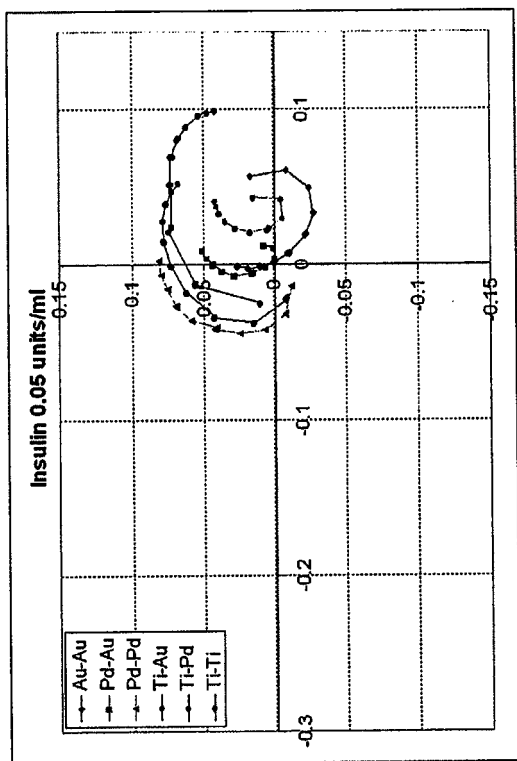


FIG. 23B

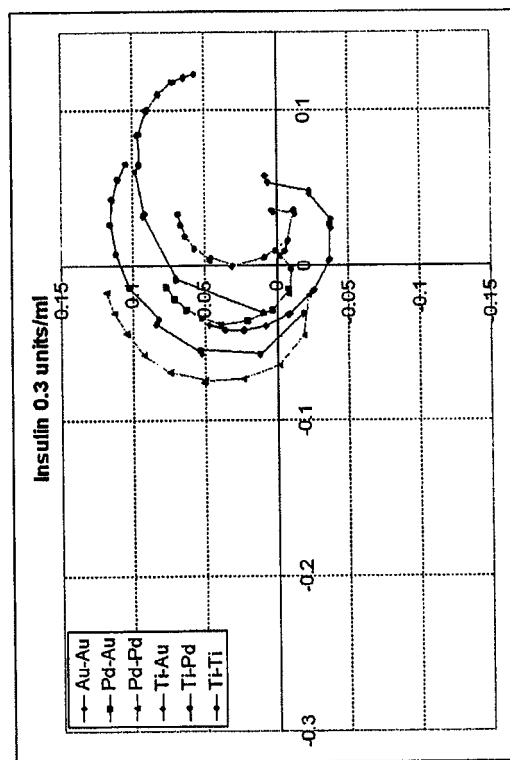


FIG. 23D

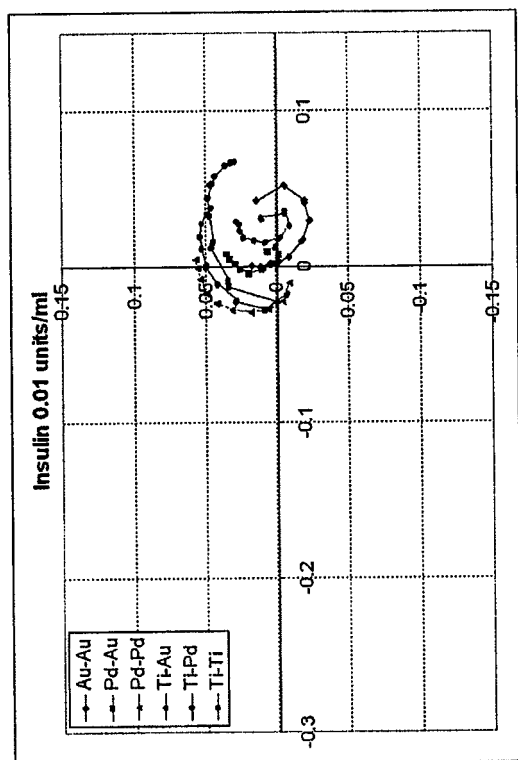


FIG. 23A

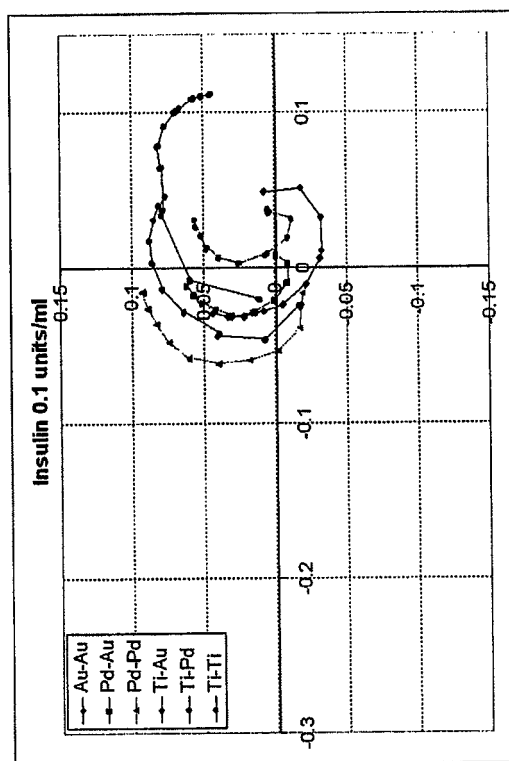
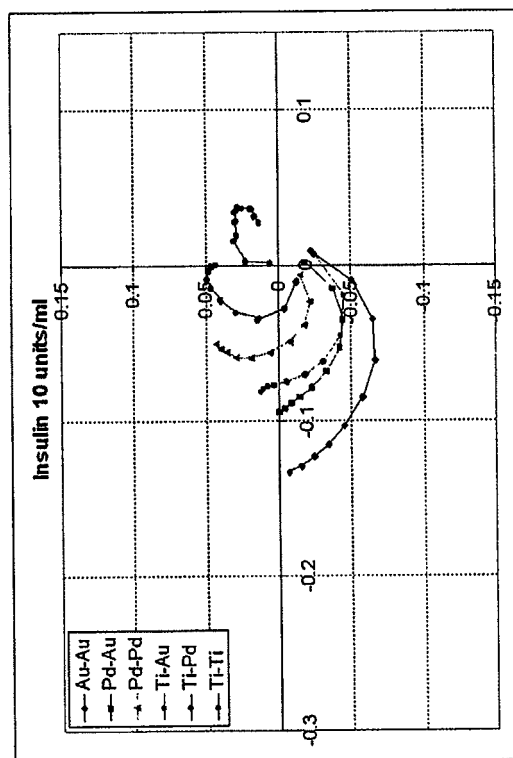
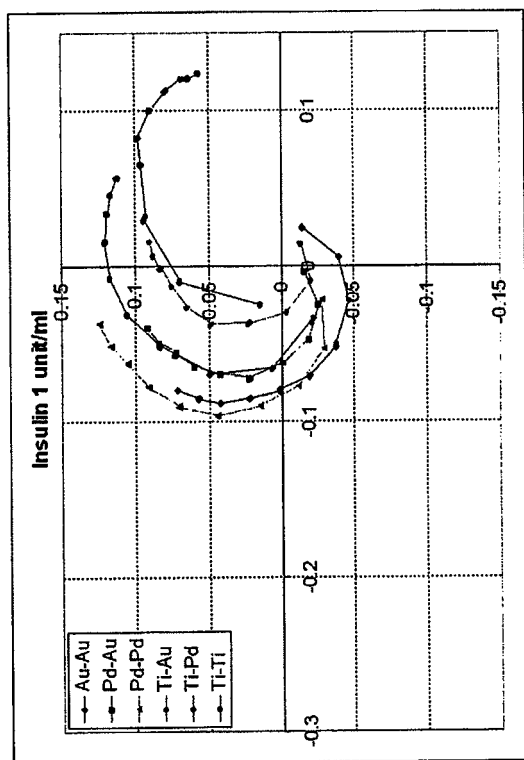
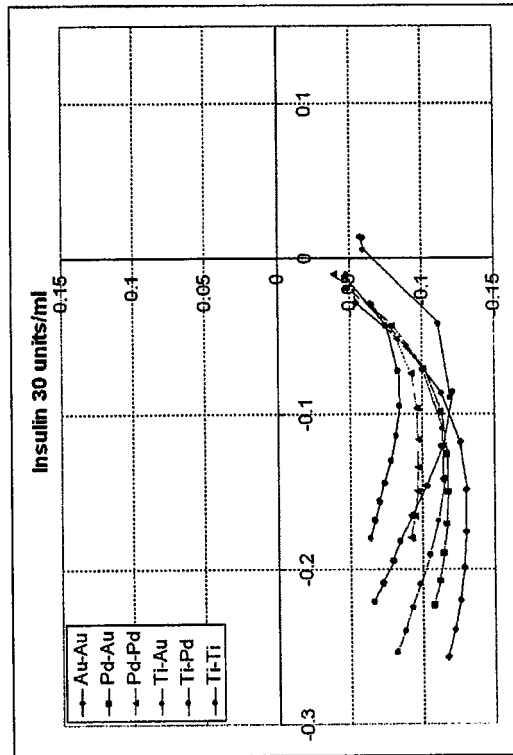
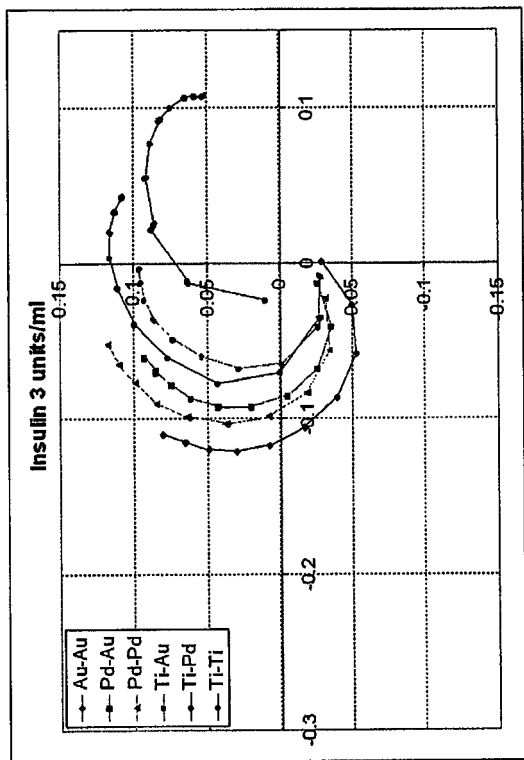


FIG. 23C



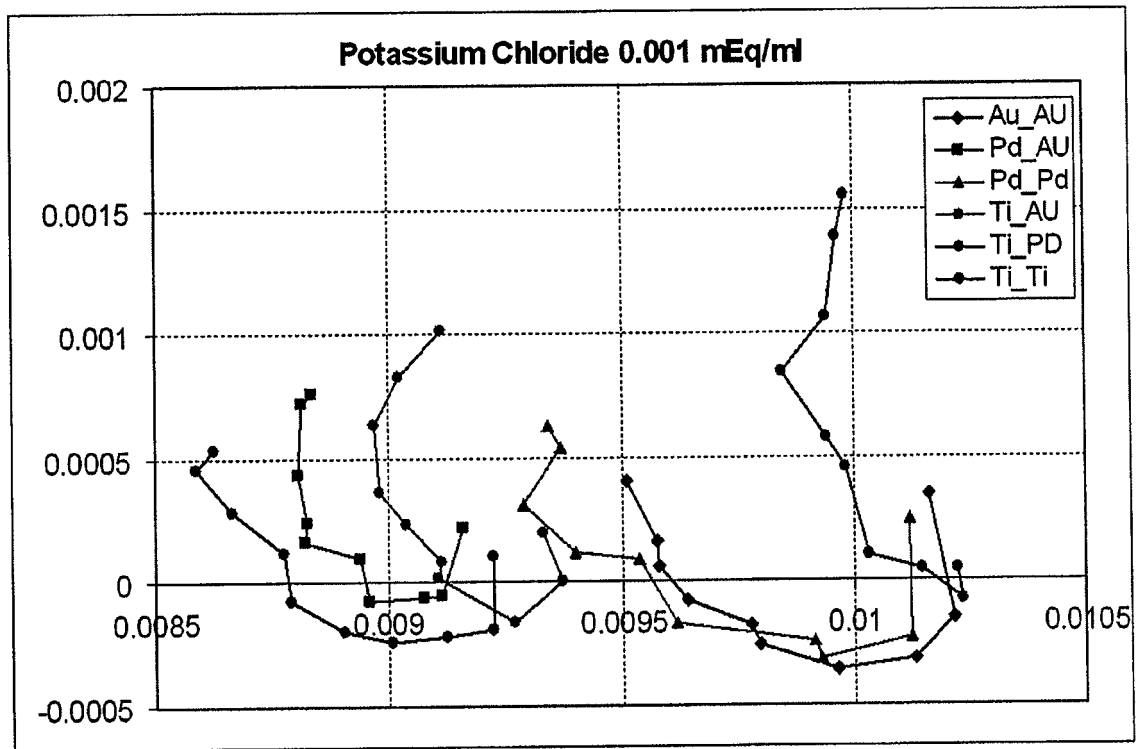


FIG. 24A

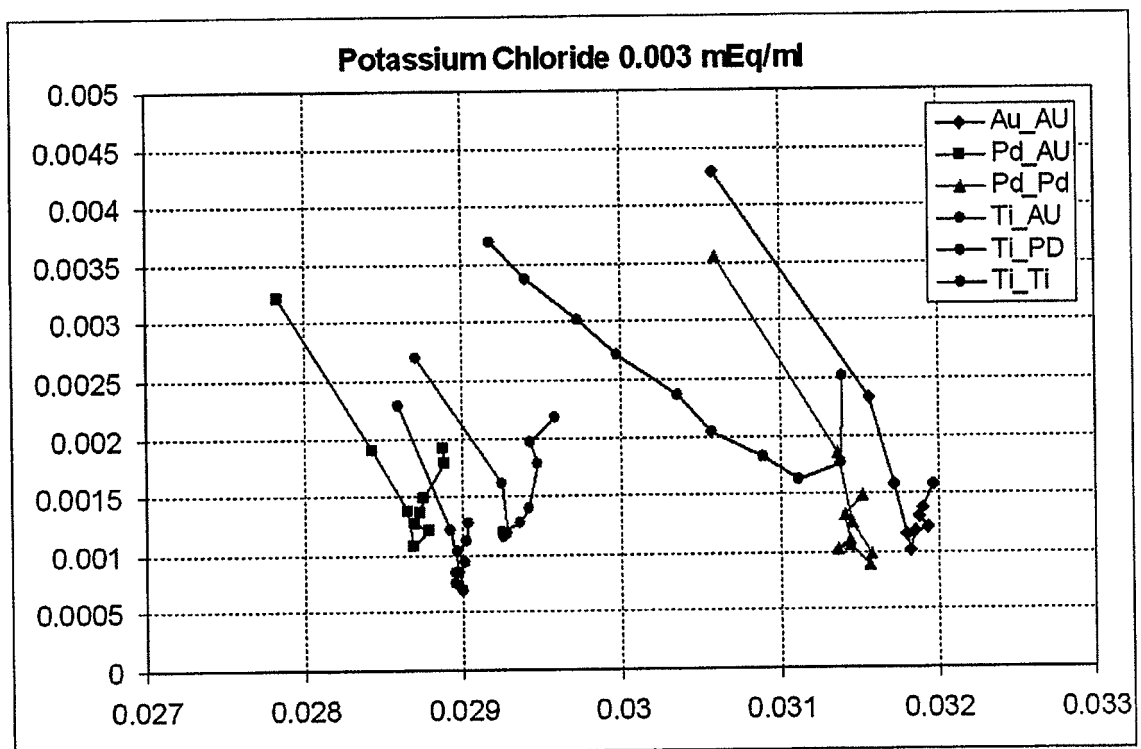


FIG. 24B

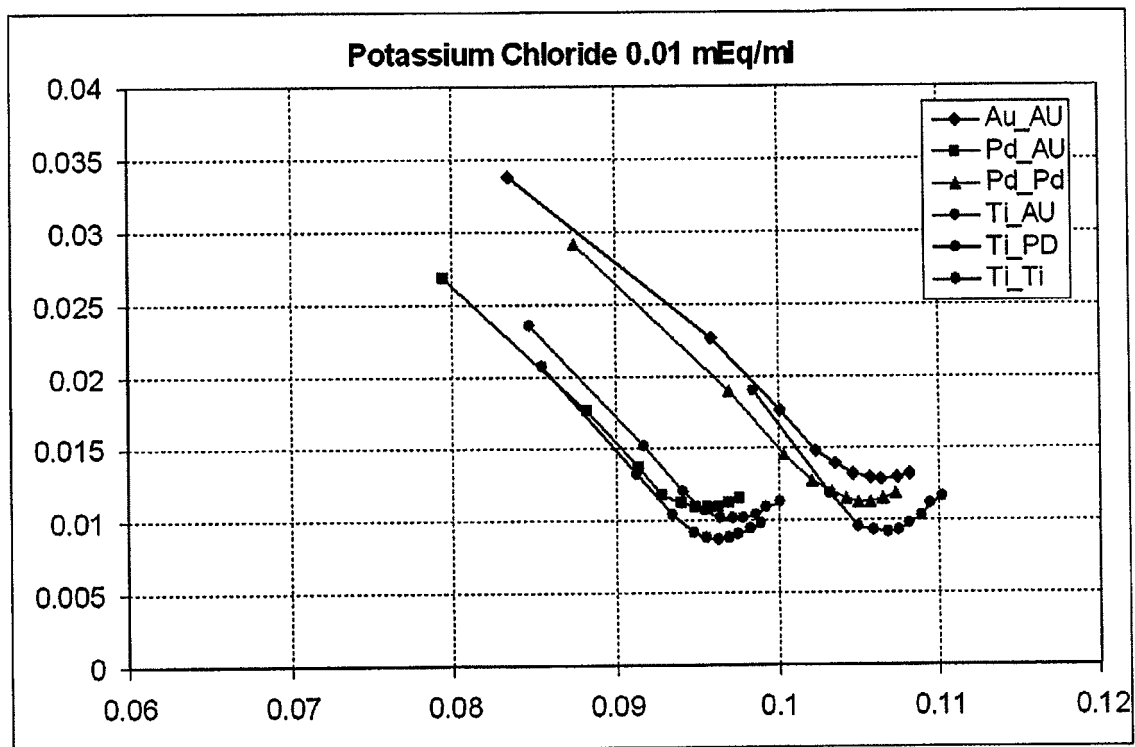


FIG. 24C

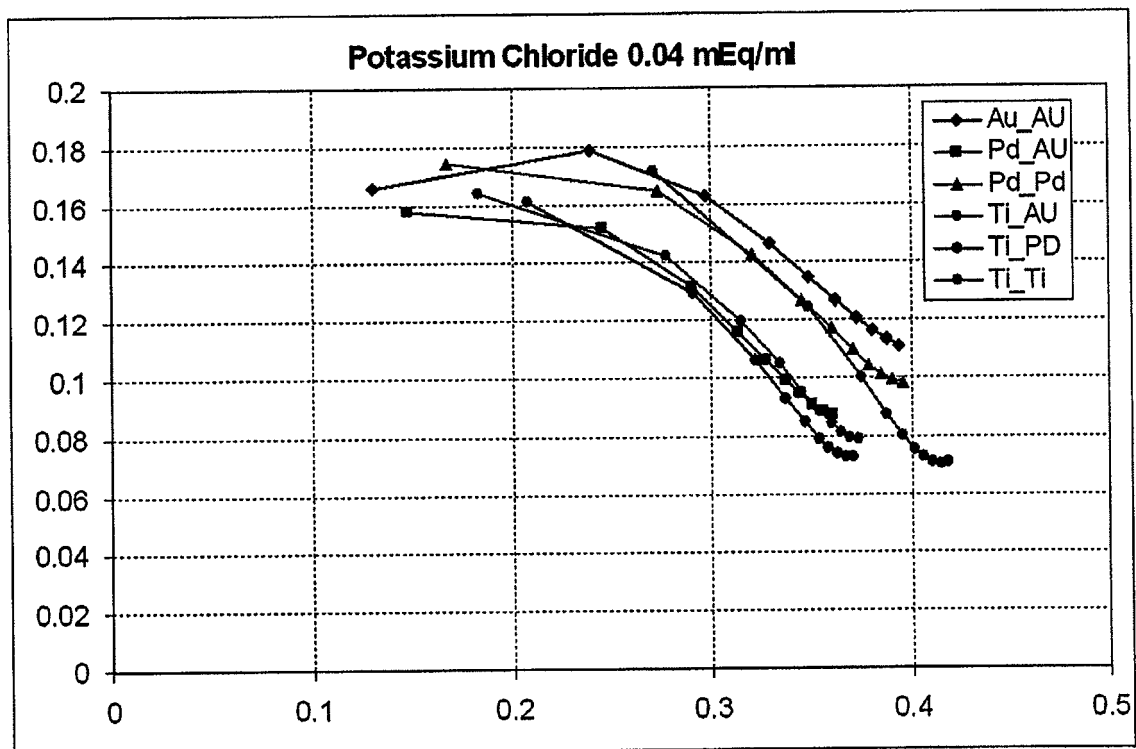


FIG. 24D

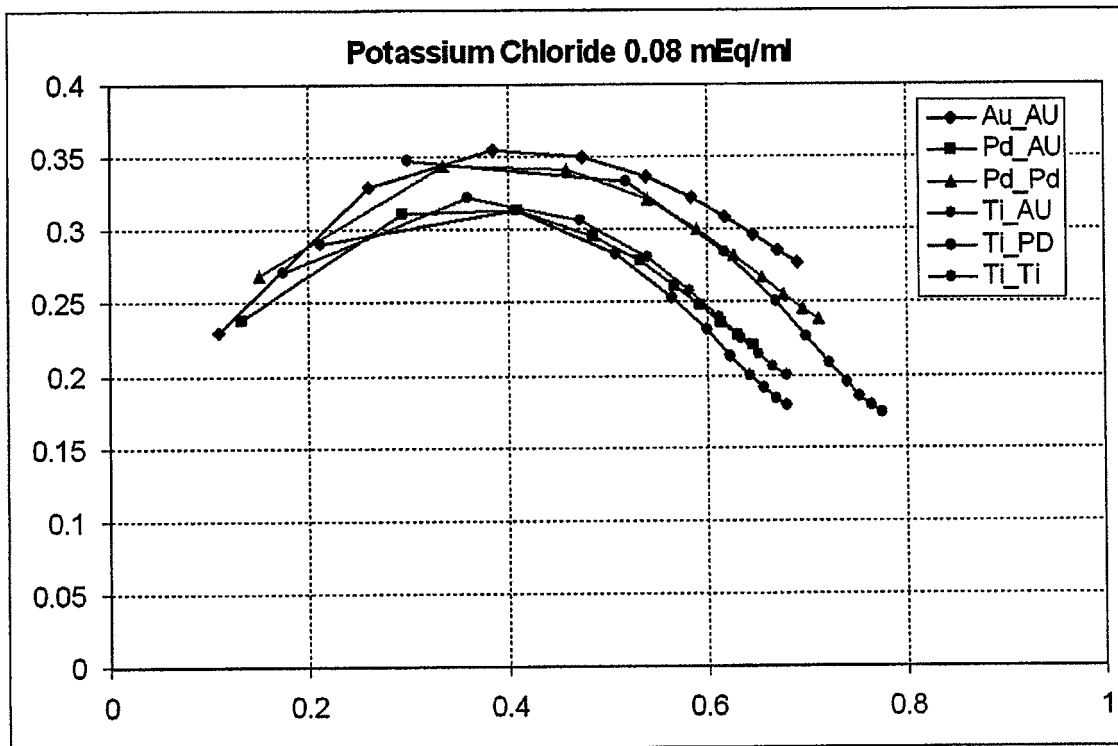


FIG. 24E

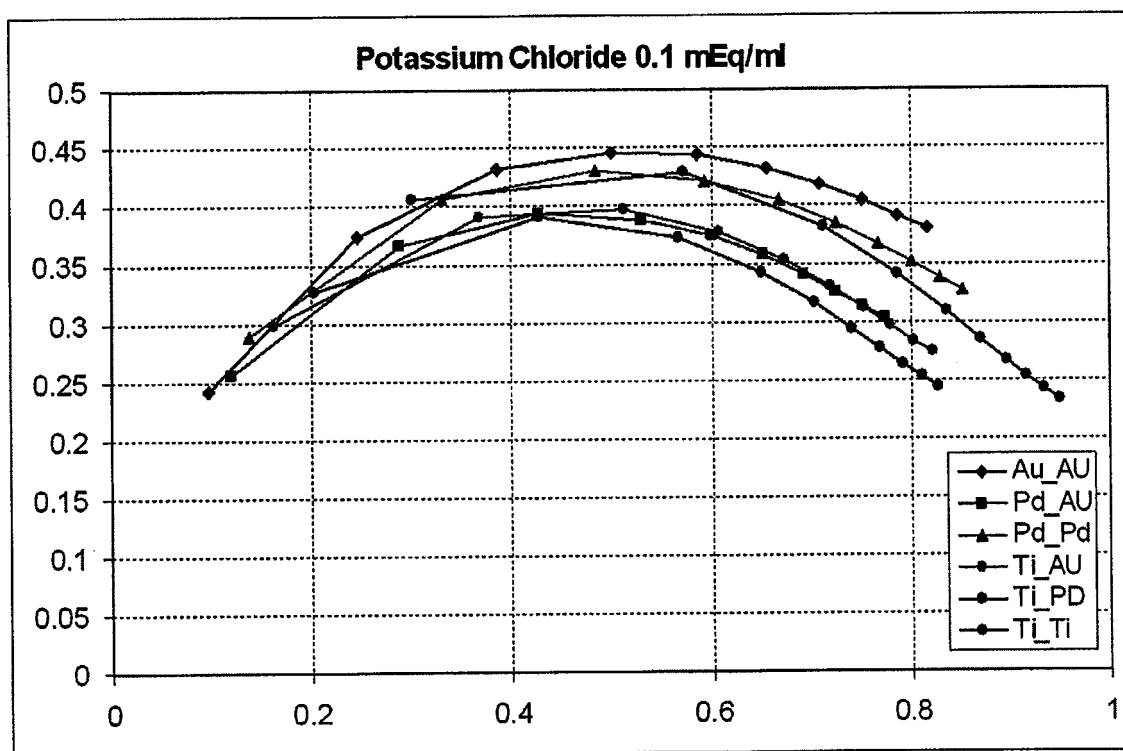


FIG. 24F

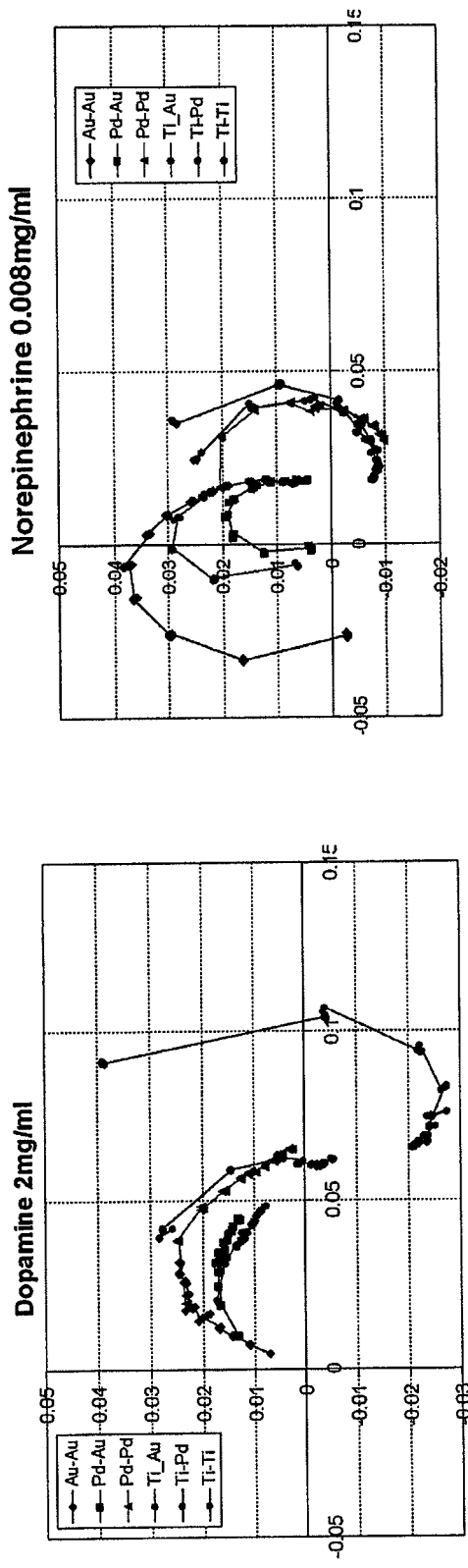


FIG. 25A

FIG. 25B

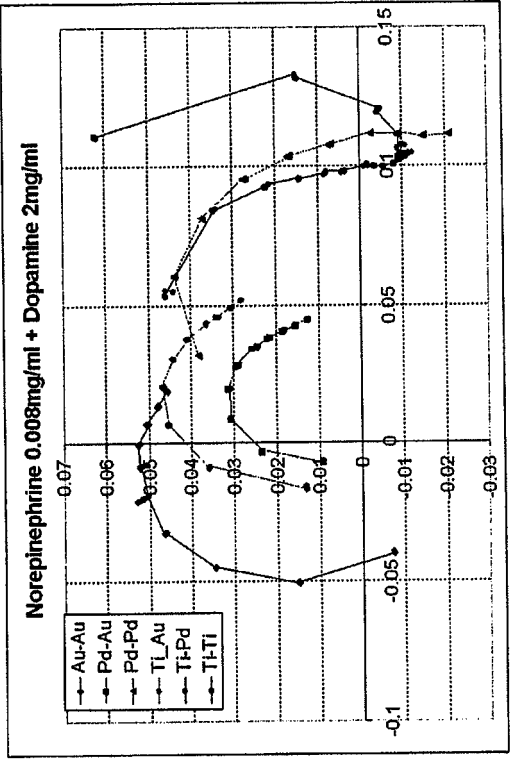


FIG. 25C

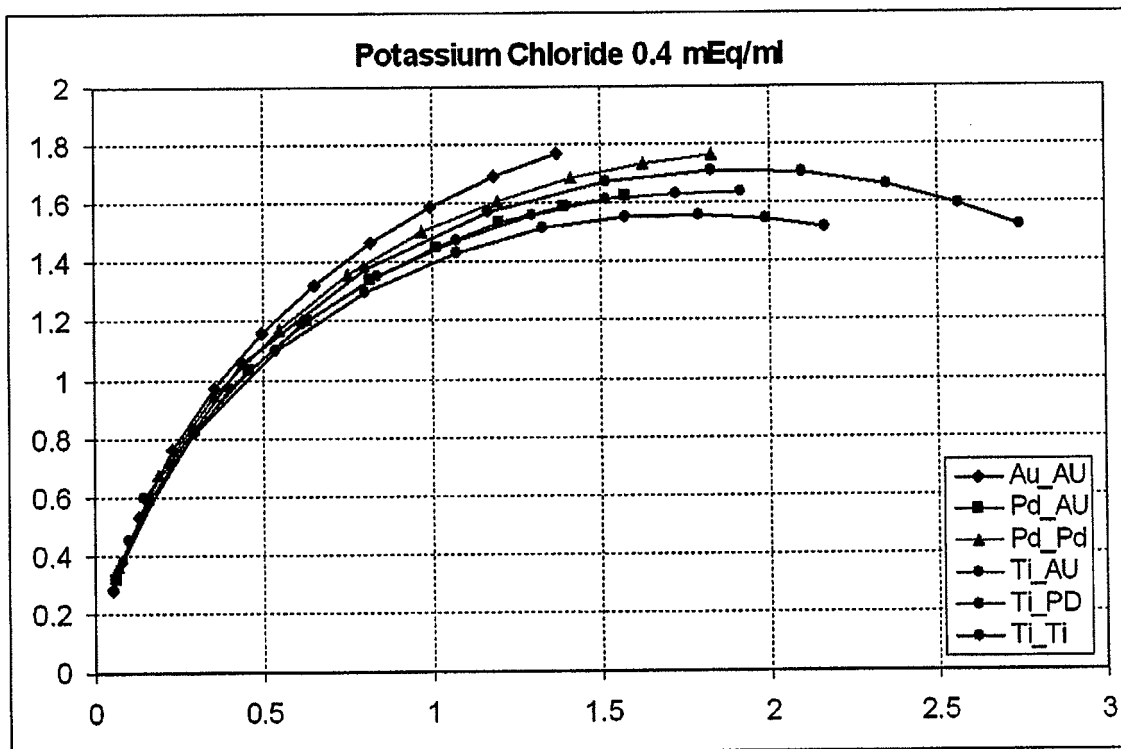


FIG. 24G

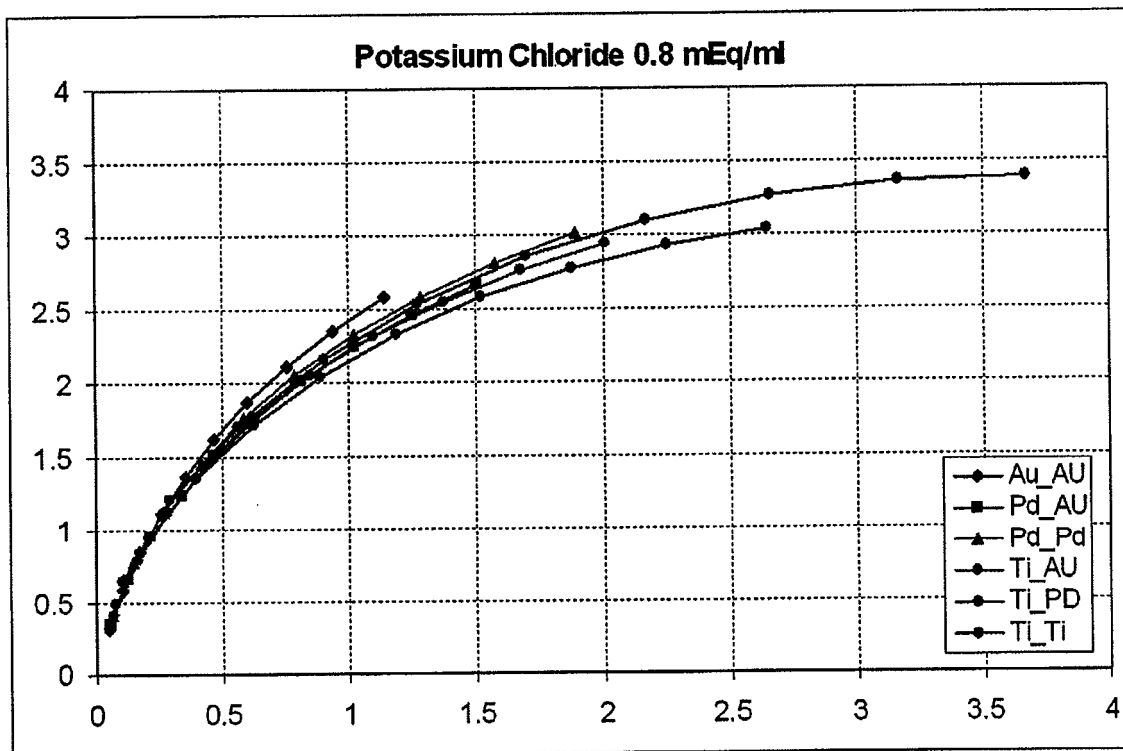
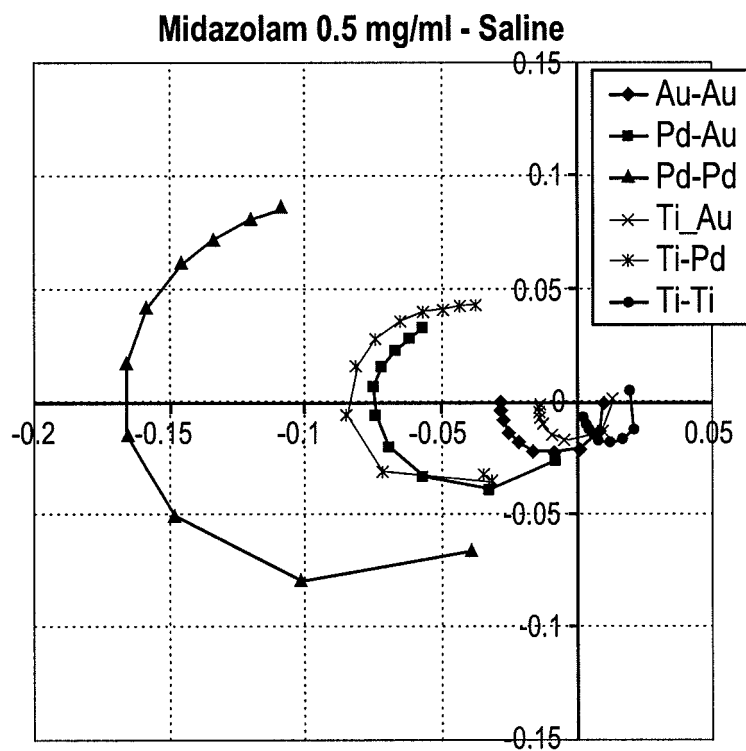
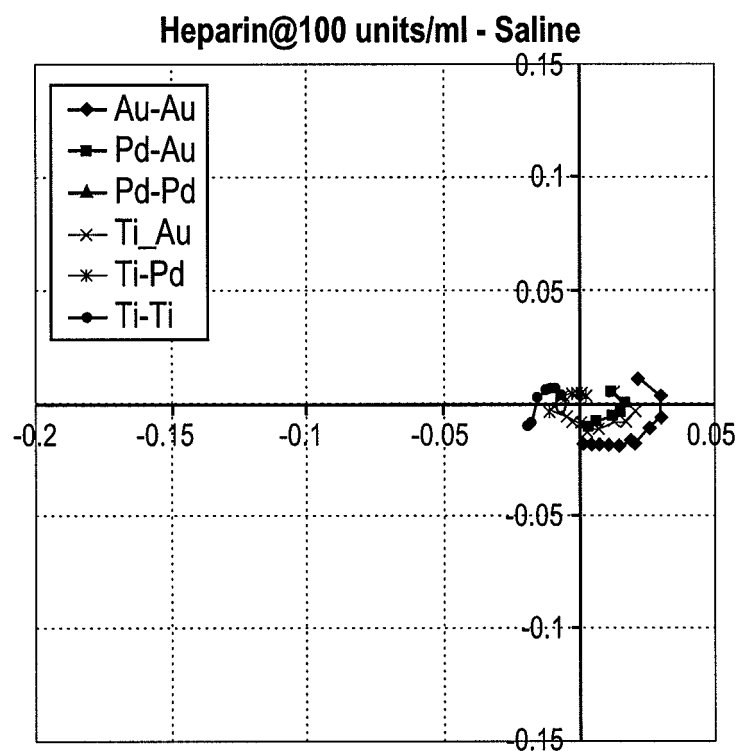


FIG. 24H

**FIG. 26A****FIG. 26B**

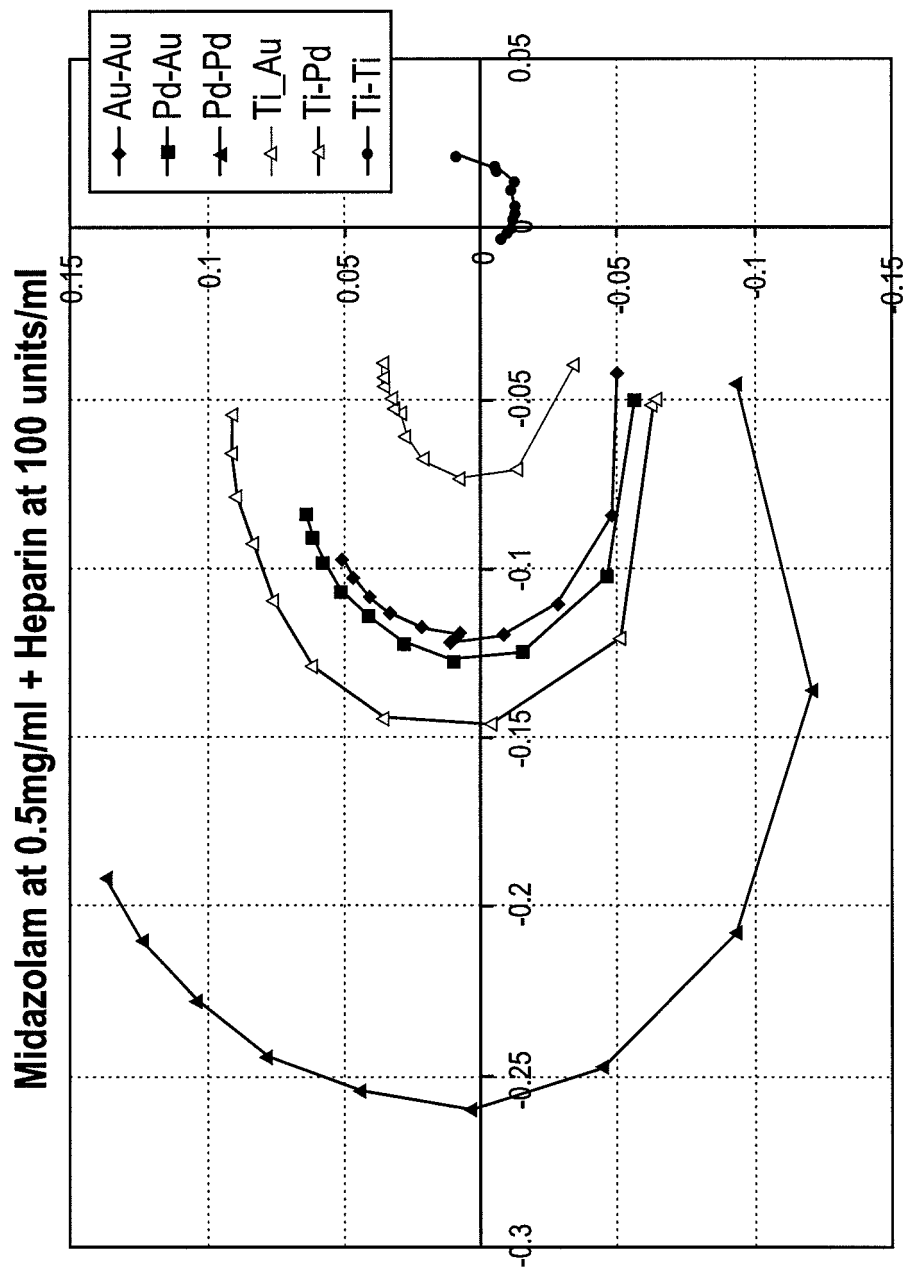


FIG. 26C

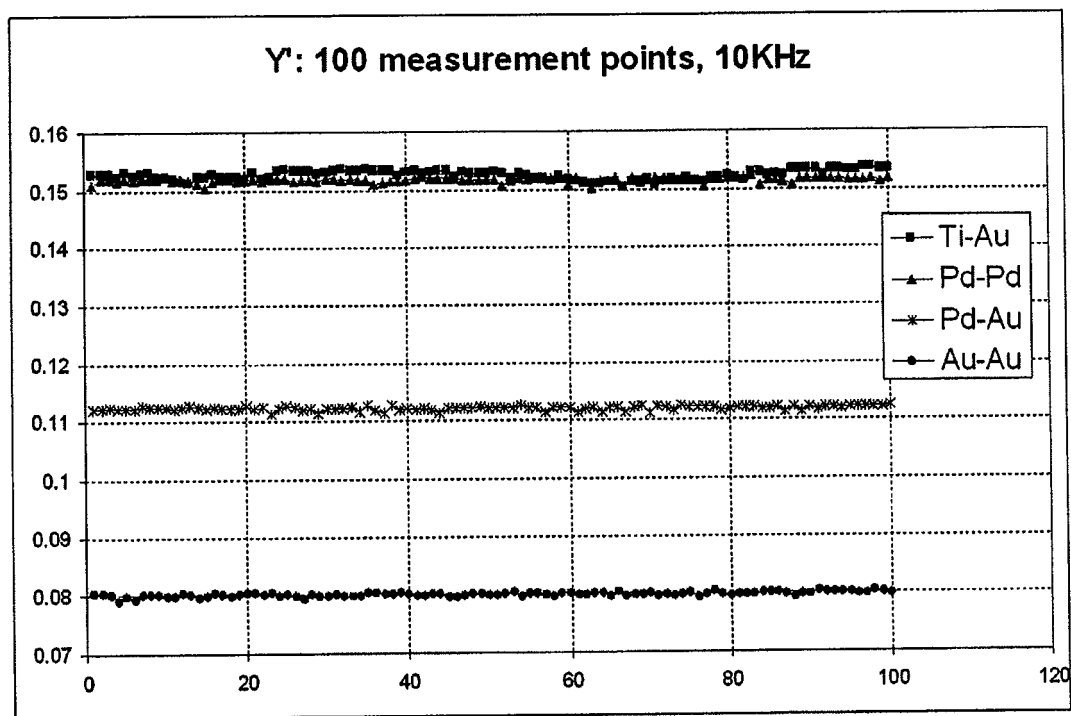


FIG. 27A

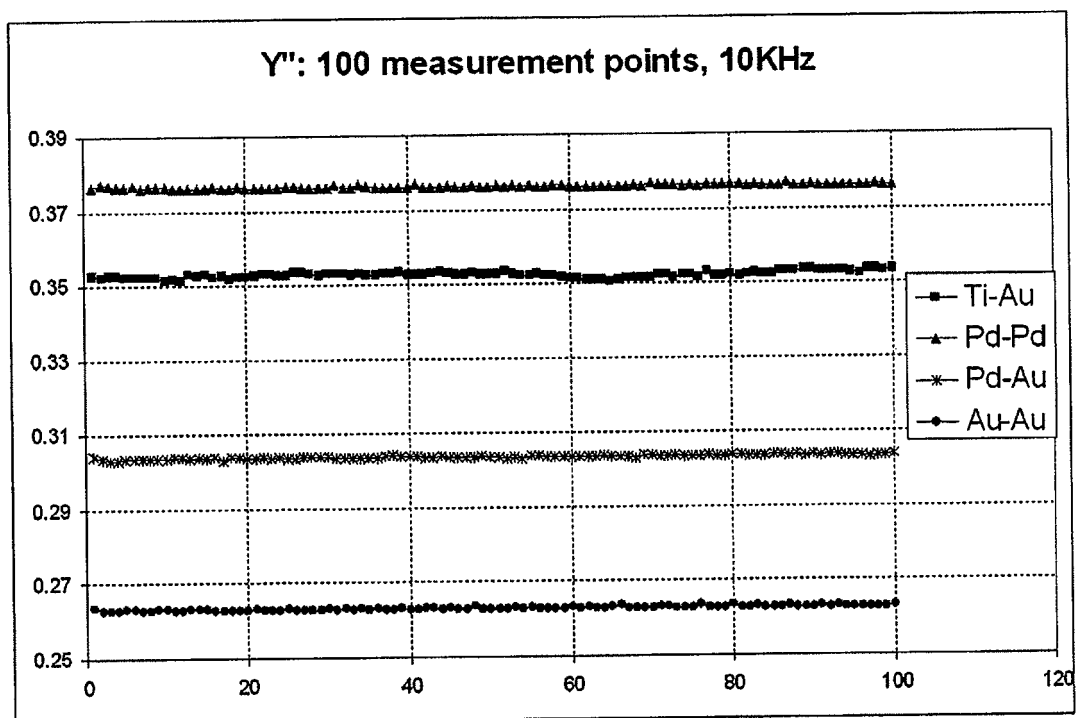


FIG. 27B

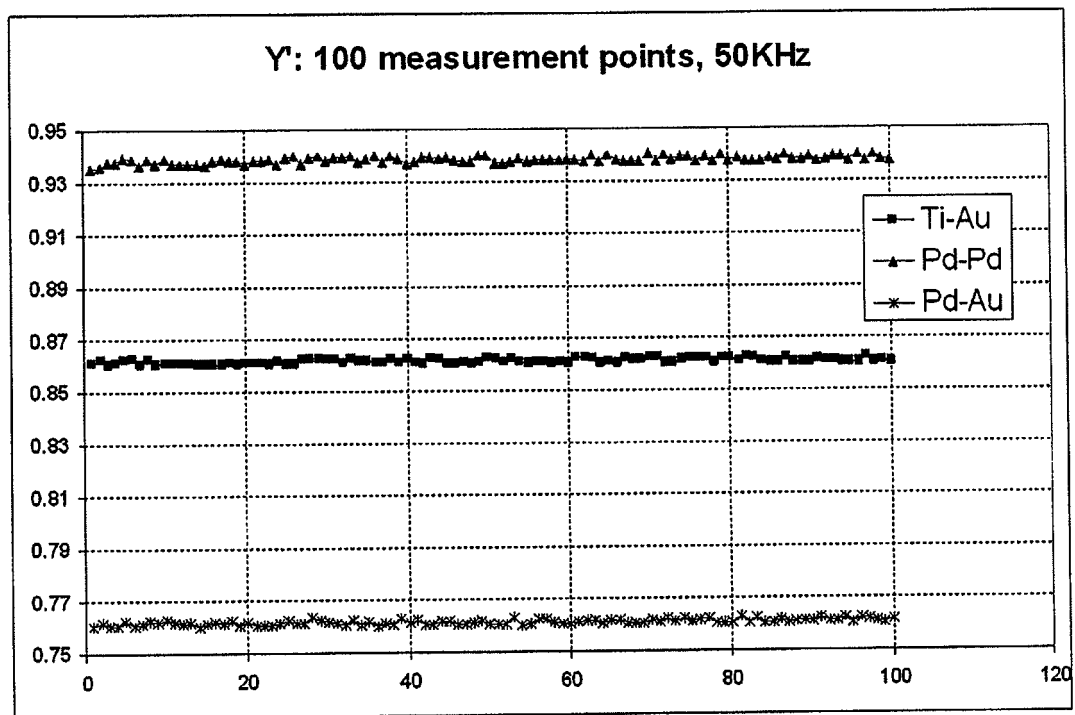


FIG. 28A

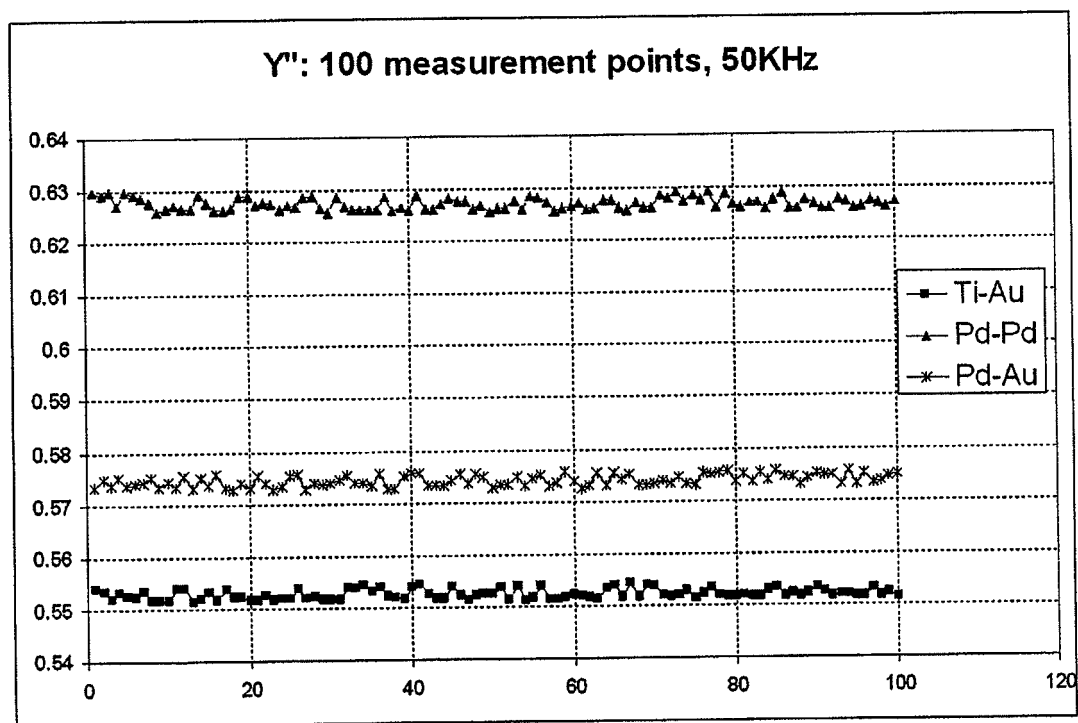


FIG. 28B

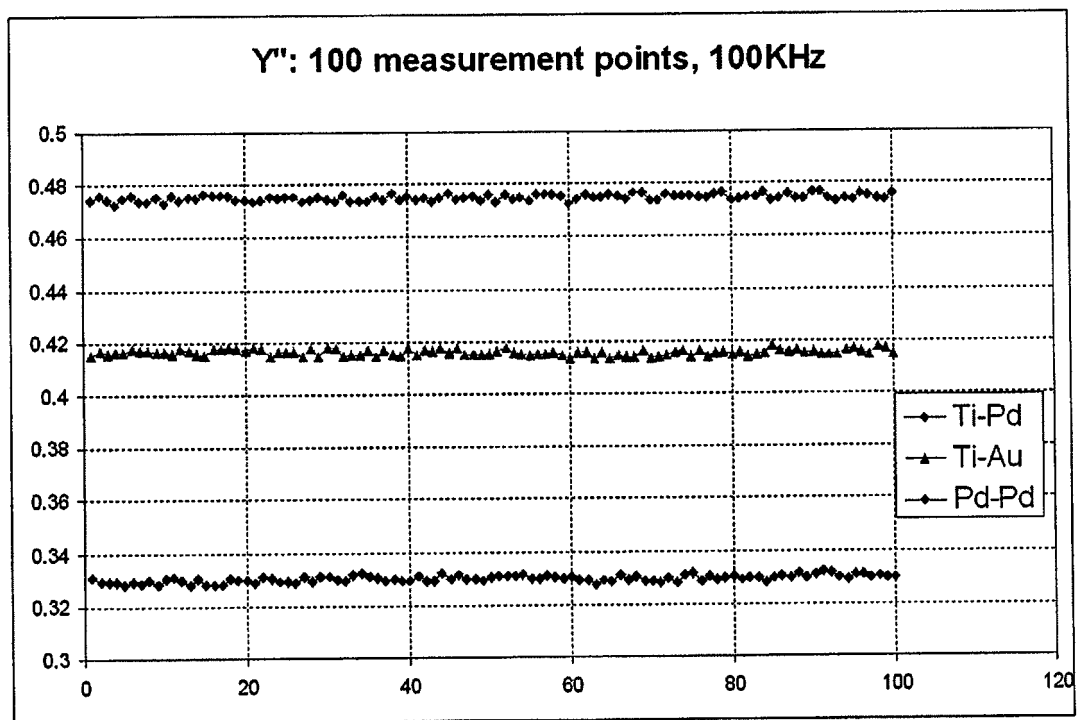


FIG. 29A

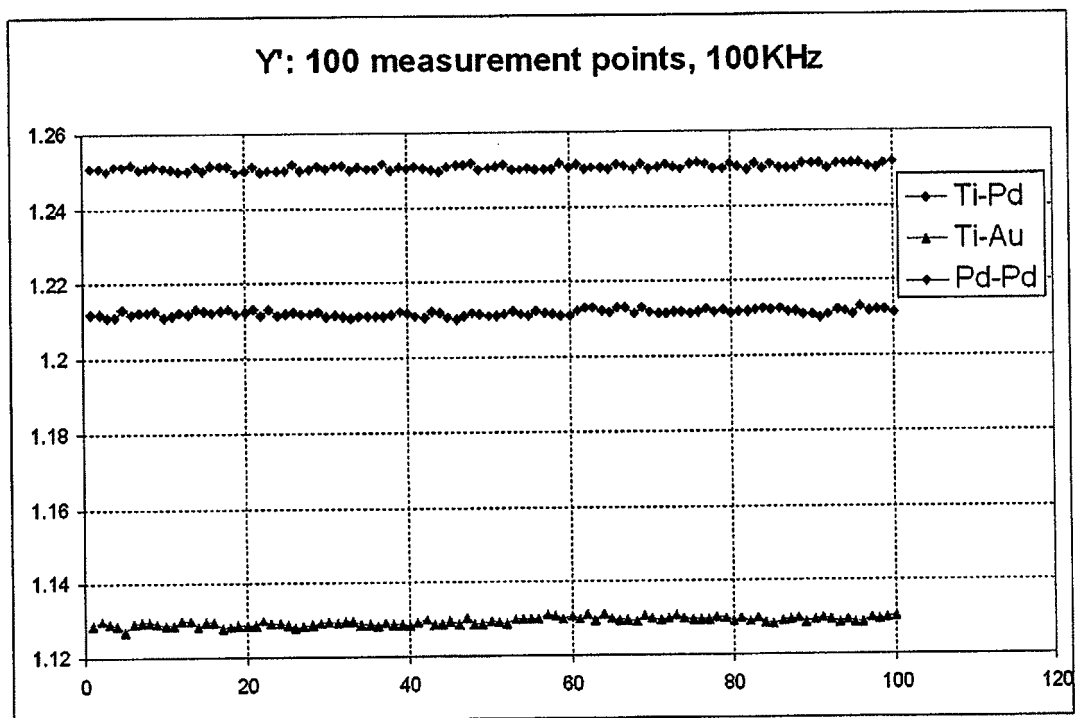


FIG. 29B

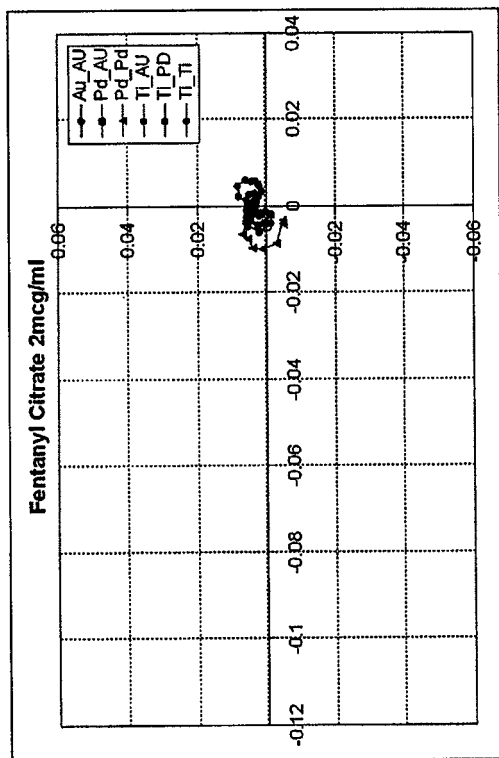


FIG. 30B

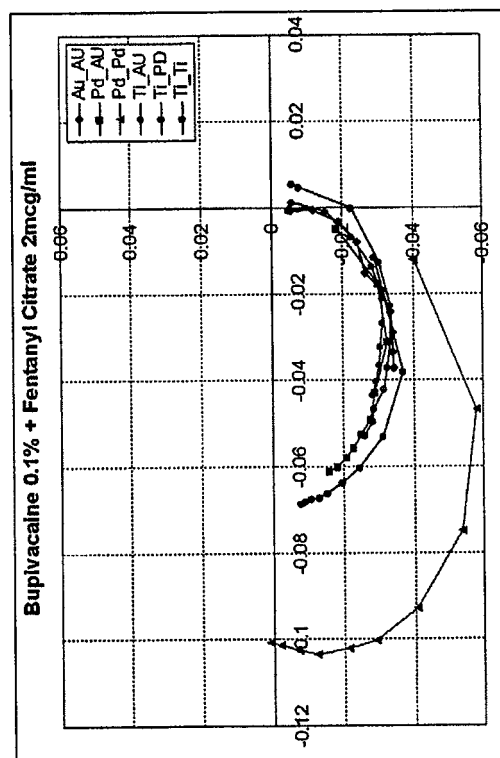


FIG. 30C

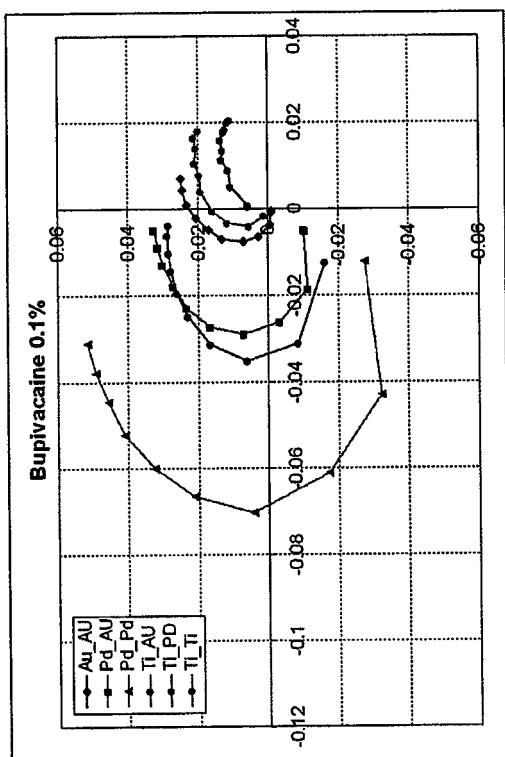


FIG. 30A

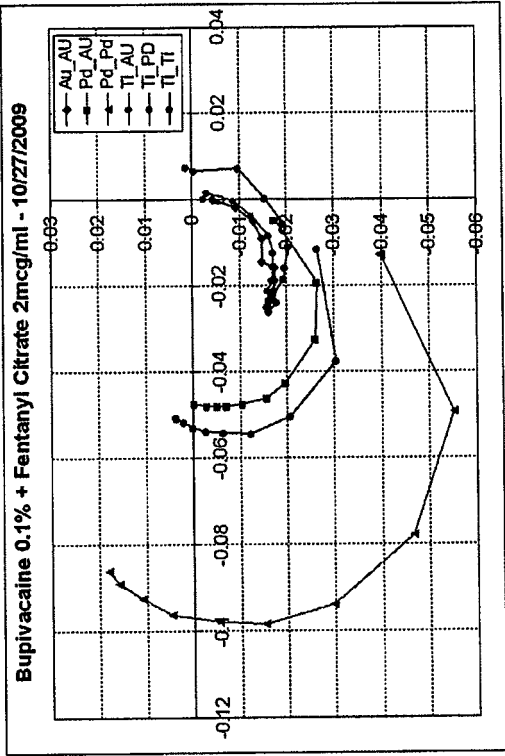


FIG. 31B

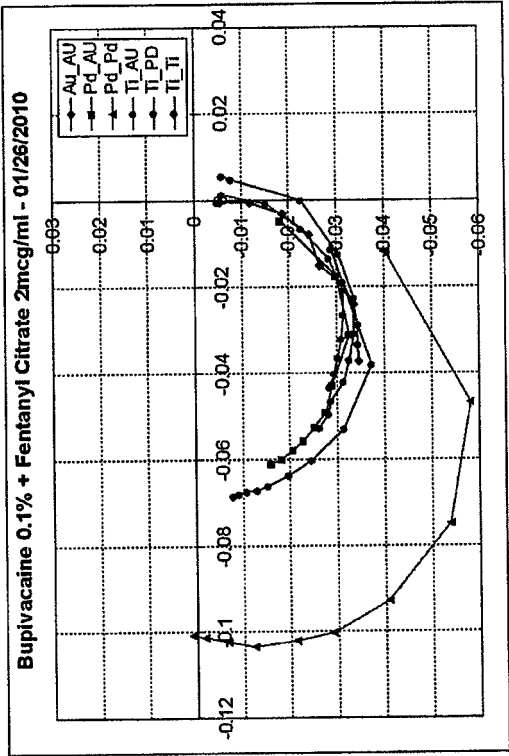


FIG. 31A

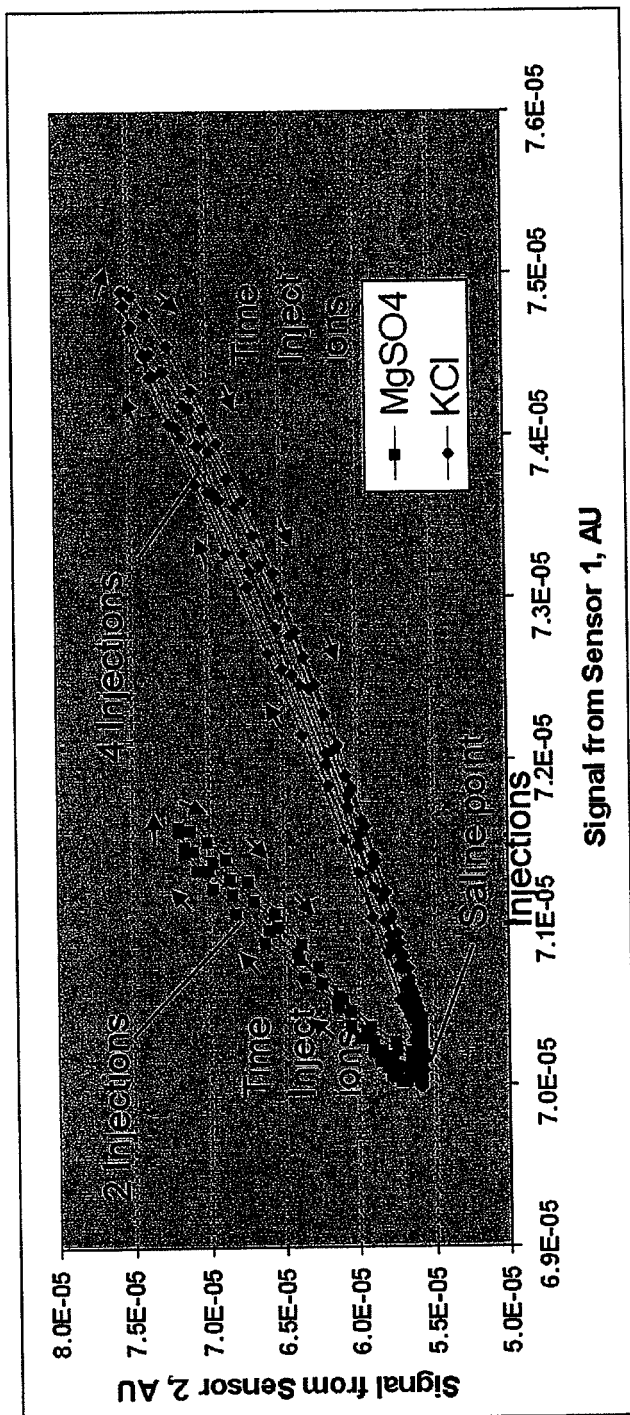


FIG. 32