

LEMBAR KERJA PRAKTIKUM MODUL IV
IKATAN KIMIA DAN KEPOLARAN MOLEKUL

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KELAS : 99
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Beri tanda $\checkmark$ pada kotak yang tersedia dan isilah data pada tabel berikut

	Rumus Molekul	Konfigurasi Elektron	Struktur Lewis	Jenis Ikatan	Bentuk Molekul	Jenis Molekul	Analisa Struktur Panjang Ikatan (Å)	Analisa Struktur Sudut Ikatan	Momen Dipol
1	H ₂	H: 1s ¹	H - H	☐ Kovalen Polar ☒ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	H-H $\Rightarrow$ 0,740	H-H 0°	0
2	N ₂	N: [He] 2s ² 2p ³	:N $\equiv$ N:	☐ Kovalen Polar ☒ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	N $\equiv$ N $\Rightarrow$ 1,12	N $\equiv$ N 0°	0
3	O ₂	O: [He] 2s ² 2p ⁴	$\ddot{O} = \ddot{O}$	☐ Kovalen Polar ☒ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	O = O 1,15093	O = O 0°	0
4	Cl ₂	Cl: [Ar] 3s ² 3p ⁵	: $\ddot{Cl} - \ddot{Cl}$:	☐ Kovalen Polar ☒ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	Cl - Cl $\Rightarrow$ 2,012	Cl - Cl 0°	0
5	HCl	H: 1s ¹ Cl: [Ar] 3s ² 3p ⁵	H - $\ddot{Cl}$:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☒ Polar ☐ Nonpolar	H - Cl $\Rightarrow$ 1,37565	H - Cl 0°	0,961
6	HBr	H: 1s ¹ Br: [Ar] 4s ² 3d ¹⁰ 4p ⁵	H - $\ddot{Br}$:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☒ Polar ☐ Nonpolar	Br - H $\Rightarrow$ 1,52996	Br - H 0°	0,827
1	BrCl	Br: [Ar] 4s ² 3d ¹⁰ 4p ⁵ Cl: [Ne] 3s ² 3p ⁵	: $\ddot{Br} - \ddot{Cl}$:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☒ Polar ☐ Nonpolar	Br - Cl $\Rightarrow$ 2,23475	Br - Cl 0°	0,364
2	H ₂ O	H: 1s ¹ O: [He] 2s ² 2p ⁴	H - $\ddot{O}$ - H	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Bentuk V	☒ Polar ☐ Nonpolar	H - O 0,990754	H - O 104,510°	1,195
3	CO ₂	C: [He] 2s ² 2p ² O: [He] 2s ² 2p ⁴	$\ddot{O} = C = \ddot{O}$	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	C = O 1,19629	C = O 179,975°	0

	Rumus Molekul	Konfigurasi Elektron	Struktur Lewis	Jenis Ikatan	Bentuk Molekul	Jenis Molekul	Analisa Struktur Panjang Ikatan (Å)	Analisa Struktur Sudut Ikatan	Momen Dipol
4	H ₂ S	H: 1s ¹ S: [Ne] 3s ² 3p ⁴	H - S - H	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Huruf V	☒ Polar ☐ Nonpolar	S-H ≈ 1,341	H-S-H ≈ 93,37°	0,180
5	NH ₃	N: [He] 2s ² 2p ³ H: 1s ¹	H - N - H H	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Piramida segitiga	☒ Polar ☐ Nonpolar	H-N ≈ 1,04331	H-N-H ≈ 100,7205°	0,41
6	NCl ₃	N: [He] 2s ² 2p ³ Cl: [Ne] 3s ² 3p ⁵	:Cl - N - Cl: :Cl:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Piramida segitiga	☒ Polar ☒ Nonpolar	N-Cl ≈ 1,73923	N-Cl ≈ 107,717°	0,117
1	CCl ₄	C: [He] 2s ² 2p ² Cl: [Ne] 3s ² 3p ⁵	:Cl: :Cl - C - Cl: :Cl:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Tetrahedral	☐ Polar ☒ Nonpolar	C-Cl ≈ 1,09, 4712	C-Cl ≈ 1,77799°	0
2	CH ₃ Cl	C: [He] 2s ² 2p ² H: 1s ¹ Cl: [Ne] 3s ² 3p ⁵	H H - C - Cl H	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Tetrahedral	☒ Polar ☐ Nonpolar	C-H ≈ 1,09 C-Cl ≈ 1,77	H-C-H ≈ 109,47° H-C-Cl ≈ 109,47°	1,312
3	BeCl BeCl ₂	Be: [He] 2s ² Cl: [Ne] 3s ² 3p ⁵	:Cl - Be - Cl:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☐ Polar ☒ Nonpolar	Be-Cl: 2,07723	Cl-Be-Cl 179,9744°	0
4	H ₃ PO ₄	H: 1s ¹ P: [Ne] 3s ² 3p ³ O: [He] 2s ² 2p ⁴	H - O - P - O - H O H	☒ Kovalen Polar ☐ Kovalen Nonpolar ☒ Ionik	Tetrahedral	☒ Polar ☐ Nonpolar	P-O ≈ 1,58652 P=O ≈ 1,4899 O-H ≈ 0,975299	O-P-O ≈ 109,1783° O-P=O ≈ 116,3601° P-O-H ≈ 110,5962°	0,14
5	AlBr ₃	Al: [Ne] 3s ² 3p ¹ Br: [Ar] 4s ² 3d ¹⁰ 4p ⁵	:Br - Al - Br: :Br:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Planar segitiga	☐ Polar ☒ Nonpolar	Al-Br: 1,4594	Br-Al-Br 120°	0
6	H ₂ SO ₄	H: 1s ¹ S: [Ne] 3s ² 3p ⁴ O: [He] 2s ² 2p ⁴	H - O - S - O - H O O	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Tetrahedral	☒ Polar ☐ Nonpolar	S=O ≈ 1,5401 S-O ≈ 1,72526 O-H ≈ 0,492986	O=S-O ≈ 108,1907° O-S-O ≈ 116,0224° S-O-H ≈ 104,7466° O=S-O ≈ 103,5592°	1,978
1	SCN ⁻	S: [Ne] 3s ² 3p ⁴ C: [He] 2s ² 2p ² N: [He] 2s ² 2p ³	:S = C = N:	☒ Kovalen Polar ☐ Kovalen Nonpolar ☐ Ionik	Linear	☒ Polar ☐ Nonpolar	C-S ≈ 1,40957 C-N ≈ 1,25692	SCN ≈ 179,9744°	0,68