Problem		**Sparsity**		**Hessian computation**[1]				
Name	Inputs	Zeros	Colors[2]	AD (prepared)	ASD (prepared)[3]		ASD (non-prep.)[3]	
3_lmbd	24	91.15%	6	$1.82 \cdot 10^{-4}$	$ \mathbf{8.29 \cdot 10^{-5}}$	**(2.2)**	$1.45 \cdot 10^{-4}$	(1.3)
5_pjm	44	94.99%	8	$6.33 \cdot 10^{-4}$	$ \mathbf{1.71 \cdot 10^{-4}}$	**(3.7)**	$3.03 \cdot 10^{-4}$	(2.1)
14_ieee	118	97.84%	10	$5.38 \cdot 10^{-3}$	$ \mathbf{4.84 \cdot 10^{-4}}$	**(11.1)**	$1.12 \cdot 10^{-3}$	(4.8)
24_ieee_rts	266	99.22%	12	$2.56 \cdot 10^{-2}$	$ \mathbf{1.04 \cdot 10^{-3}}$	**(24.7)**	$2.74 \cdot 10^{-3}$	(9.3)
30_as	236	98.89%	12	$2.39 \cdot 10^{-2}$	$ \mathbf{1.10 \cdot 10^{-3}}$	**(21.8)**	$2.84 \cdot 10^{-3}$	(8.4)
30_ieee	236	98.89%	12	$2.37 \cdot 10^{-2}$	$ \mathbf{1.09 \cdot 10^{-3}}$	**(21.6)**	$2.87 \cdot 10^{-3}$	(8.3)
39_epri	282	99.10%	10	$3.28 \cdot 10^{-2}$	$ \mathbf{1.21 \cdot 10^{-3}}$	**(27.1)**	$3.43 \cdot 10^{-3}$	(9.6)
57_ieee	448	99.41%	14	$8.80 \cdot 10^{-2}$	$ \mathbf{3.96 \cdot 10^{-3}}$	**(22.2)**	$9.23 \cdot 10^{-3}$	(9.5)
60_c	518	99.56%	12	$1.15 \cdot 10^{-1}$	$ \mathbf{2.36 \cdot 10^{-3}}$	**(48.6)**	$8.61 \cdot 10^{-3}$	(13.3)
73_ieee_rts	824	99.74%	12	$2.75 \cdot 10^{-1}$	$ \mathbf{3.47 \cdot 10^{-3}}$	**(79.1)**	$1.54 \cdot 10^{-2}$	(17.8)
89_pegase	1042	99.74%	26	$5.61 \cdot 10^{-1}$	$ \mathbf{1.61	**(34.8)**	$4.28 \cdot 10^{-2}$	(13.1)

					\cdot 10^{-2}}$			
118_ieee	1088	99.77%	12	$5.55 \cdot 10^{-1}$	$ \mathbf{5.25 \cdot 10^{-3}}$	**(105.8)**	$3.13 \cdot 10^{-2}$	(17.7)
162_ieee_dtc	1484	99.82%	16	$1.16 \cdot 10^{0}$	$ \mathbf{1.53 \cdot 10^{-2}}$	**(75.7)**	$5.53 \cdot 10^{-2}$	(20.9)
179_goc	1468	99.83%	14	$1.08 \cdot 10^{0}$	$ \mathbf{1.33 \cdot 10^{-2}}$	**(81.3)**	$5.06 \cdot 10^{-2}$	(21.4)
197_snem	1608	99.85%	14	$1.34 \cdot 10^{0}$	$ \mathbf{1.46 \cdot 10^{-2}}$	**(92.2)**	$5.84 \cdot 10^{-2}$	(23.0)
200_activ	1456	99.82%	12	$1.02 \cdot 10^{0}$	$ \mathbf{6.94 \cdot 10^{-3}}$	**(146.6)**	$3.88 \cdot 10^{-2}$	(26.3)
240_pserc	2558	99.91%	16	$3.51 \cdot 10^{0}$	$ \mathbf{2.50 \cdot 10^{-2}}$	**(140.2)**	$1.04 \cdot 10^{-1}$	(33.6)
300_ieee	2382	99.89%	14	$3.00 \cdot 10^{0}$	$ \mathbf{2.14 \cdot 10^{-2}}$	**(140.3)**	$9.67 \cdot 10^{-2}$	(31.1)
500_goc	4254	99.94%	14	$1.18 \cdot 10^{1}$	$ \mathbf{3.85 \cdot 10^{-2}}$	**(307.3)**	$2.20 \cdot 10^{-1}$	(53.7)
588_sdet	4110	99.94%	14	$1.14 \cdot 10^{1}$	$ \mathbf{3.60 \cdot 10^{-2}}$	**(316.1)**	$2.14 \cdot 10^{-1}$	(53.3)
793_goc	5432	99.95%	14	$2.17 \cdot 10^{1}$	$ \mathbf{4.91 \cdot 10^{-2}}$	**(443.1)**	$3.33 \cdot 10^{-1}$	(65.3)
1354_pegase	11192	99.98%	18	$1.36 \cdot 10^{2}$	$ \mathbf{1.21 \cdot 10^{-1}}$	**(1128.4)**	$6.21 \cdot 10^{-1}$	(219.6)

1803_snem	15246	99.98%	16	$2.09 \cdot 10^{2}$	$ \mathbf{1.66 \cdot 10^{-1}}$	**(1259.5)**	$1.07 \cdot 10^{0}$	(195.0)
1888_rte	14480	99.98%	18	$8.15 \cdot 10^{2}$	$ \mathbf{1.43 \cdot 10^{-1}}$	**(5706.7)**	$8.76 \cdot 10^{-1}$	(930.4)
1951_rte	15018	99.98%	20	$2.00 \cdot 10^{2}$	$ \mathbf{1.54 \cdot 10^{-1}}$	**(1293.4)**	$1.00 \cdot 10^{0}$	(199.1)
2000_goc	19008	99.99%	18	$3.58 \cdot 10^{2}$	$ \mathbf{2.15 \cdot 10^{-1}}$	**(1669.5)**	$1.61 \cdot 10^{0}$	(222.7)
2312_goc	17128	99.98%	16	$2.75 \cdot 10^{2}$	$ \mathbf{1.87 \cdot 10^{-1}}$	**(1470.7)**	$1.35 \cdot 10^{0}$	(204.5)
2383wp_k	17004	99.98%	16	$2.65 \cdot 10^{2}$	$ \mathbf{1.80 \cdot 10^{-1}}$	**(1468.2)**	$1.14 \cdot 10^{0}$	(231.4)
2736sp_k	19088	99.99%	14	$3.30 \cdot 10^{2}$	$ \mathbf{1.78 \cdot 10^{-1}}$	**(1857.2)**	$1.40 \cdot 10^{0}$	(235.5)
2737sop_k	18988	99.99%	16	$3.29 \cdot 10^{2}$	$ \mathbf{2.02 \cdot 10^{-1}}$	**(1629.8)**	$1.47 \cdot 10^{0}$	(223.0)
2742_goc	24540	99.99%	14	$6.50 \cdot 10^{2}$	$ \mathbf{2.41 \cdot 10^{-1}}$	**(2694.1)**	$1.78 \cdot 10^{0}$	(366.3)
2746wop_k	19582	99.99%	16	$3.64 \cdot 10^{2}$	$ \mathbf{2.07 \cdot 10^{-1}}$	**(1755.7)**	$1.54 \cdot 10^{0}$	(235.6)
2746wp_k	19520	99.99%	14	$3.53 \cdot 10^{2}$	$ \mathbf{1.77 \cdot 10^{-1}}$	**(1991.4)**	$1.51 \cdot 10^{0}$	(234.5)

2848_rte	21822	99.99%	20	$4.67 \cdot 10^{2}$	$ \mathbf{2.24 \cdot 10^{-1}}$	**(2083.5)**	$1.80 \cdot 10^{0}$	(259.7)
2853_sdet	23028	99.99%	26	$5.38 \cdot 10^{2}$	$ \mathbf{3.62 \cdot 10^{-1}}$	**(1486.9)**	$1.68 \cdot 10^{0}$	(320.6)
2868_rte	22090	99.99%	20	$5.02 \cdot 10^{2}$	$ \mathbf{2.35 \cdot 10^{-1}}$	**(2137.9)**	$1.73 \cdot 10^{0}$	(290.0)
2869_pegase	25086	99.99%	28	$5.08 \cdot 10^{2}$	$ \mathbf{4.07 \cdot 10^{-1}}$	**(1249.0)**	$1.99 \cdot 10^{0}$	(255.5)
3012wp_k	21082	99.99%	14	$4.33 \cdot 10^{2}$	$ \mathbf{1.96 \cdot 10^{-1}}$	**(2208.3)**	$1.77 \cdot 10^{0}$	(245.1)
3022_goc	23238	99.99%	18	$5.76 \cdot 10^{2}$	$ \mathbf{2.51 \cdot 10^{-1}}$	**(2296.9)**	$1.48 \cdot 10^{0}$	(390.7)
3120sp_k	21608	99.99%	18	$4.56 \cdot 10^{2}$	$ \mathbf{2.26 \cdot 10^{-1}}$	**(2019.2)**	$1.90 \cdot 10^{0}$	(240.1)
3375wp_k	24350	99.99%	18	$6.25 \cdot 10^{2}$	$ \mathbf{2.54 \cdot 10^{-1}}$	**(2463.9)**	$1.71 \cdot 10^{0}$	(365.1)

[1]Wall time in seconds.

[2]Number of colors resulting from greedy column coloring.

[3]In parenthesis: Wall time ratio compared to prepared prepared AD (higher is better).